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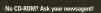
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Editorial



The astute will have noticed a subtle audio theme about this issue. It's time to move on from the old days of four channel 8-bit sound into the world of professional audio. Find out how, starting on page 32.

Meanwhile we take a new look the Video Toaster,

which is now available cheaper than ever. Rounding off the features we've got Andrew Korn to unravel the web of confusion surrounding that bombshell from Amiga Inc with an update on what's happen since then. Not to mention all of this...

Tony Horgan, Editor

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AMIGA

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Compact flash memory slot
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Shutter Speed: 1/60 to 1/4000
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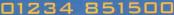
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News from Motorola



e Video e signal Magic patible

> BM and Motorola have announced that their jointly funded PowerPC research centre is to end. The Somerset

wholly owned and operated by co-operate closely on advancing and marketing the PowerPC architecture. The PowerPC is important to both companies, especially in the area of embedded processors, a rapidly expanding sector of the market. The not expected to have any adverse effect on the production of PowerPCs for desktop applications In fact Motorola say that complete control at Somerset will permit subsidisation in this market.

The fall out between IBM and Motorola is allegedly due to Motorola's proposed Altivec Technology, Altivec is a multimedia extension to the PowerPC architecture for high-bandwidth-data applications - such as video/audio intended to compete with Intel's MMX extension to the Pentium but is far more radical. Altivec processors will feature a 128-bit wide vector unit, capable of operating in parallel with the FPU and ALU, and which (Single Instruction Multiple Data) an optimization making the processing of data streams possible with very few instructions and hence more efficient. The first processor incorporating Altivec is the G4, a 32release in the first half of 1999.

Motorola are also looking rather to be designing a 64-bit processor which will rival the IA64 series, the next generation project from Intel and Hewlett-Packard. No details of this new chip have been released

Amiga gets new Web browser

Work is under way on porting The Norwegian shareware browser currently available only on Windows platforms, where it is well-respected and popular, mainly due to its Amiga - like small size, efficiency and user friendliness. The decision to bring Opera to the Amiga is because of the tremendous response voiced by the Amiga community to Opera Software's Project Magic initiative a survey of interest in the Opera browser for 'alternative' operating systems such as AmigaOS, BeOS

The Amiga version of Opera is being produced by the UK-based company, Ramjam Consultants. Their project leader, Tim Corringham, believes there is room for Opera in the Amiga browser market because it offers more functionality and



stability than current browsers. The first release of this product is scheduled for December 98 and will be for Classic Amigas with WB3.1 and a minimum of 4MB of RAM, A PPC version is expected to follow. While pricing has not yet been confirmed, it is expected to be comparable to the PC version (currently USD \$35 or about £20).

More information can be found from Opera's web site at http://www.operasoftware.com/



The browser that was made for you!

PPC Emulators are coming

Microcode Solutions has finally released the PC version of the Fusion Macintosh emulator. That's not good news for Amiga users in and of itself, but it does finally free up their resources to get back to work on Amiga projects.

PowerUP-compatible versions of both Microcode's PCx (PC-compatible) and Fusion (Macintosh) have been in progress for some time, but Microcode diverted all of its efforts to the completion of their first PC product, Fusion for MS-DOS.

Now that it has been released. are back to work on Amiga products but declined to offer any potential

firmed rumours have suggested that Mac OS enough of the origina ROM code that Fusion run Mac OS 8 out of



the box, without requiring ROM images. We await Apple's opinion on the matter if true, it could make total PowerMac solutions possible. You can visit Microcode

Solutions's new website at http://www.microcodesolutions.com

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PPaint 6.4 free. PPaint 8 coming.

PPaint 6.4, a version of the premiere bitmapped paint package that is barely eighteen months old, is being made freely distributable by the publisher's, Cloanto. To get your own fully functional, free copy of this package visit the biz/cloan

on version 8 of PPaint. A major rewrite is to be undertaken to create more portable code, thus what direction Amiga takes with any new OS. New features planned for this release include true-colour, layers, and improved



Stop Press

Cybervision PPC is here

ICOA User Rep Selected

In a landslide result, occasional CU contributor Hary Laser was selected to serve on the ICOA Steering Committee as one of five voting members. The other four have yet to be selected, but will be chosen in upcoming ICOA elections. Laser received 174 out of 274 votes.

Some have voiced concern that someone was elected to represent the world's users out of a list of three Americans and a tiny electorate. but the ICOA have said that future elections will be less rushed and give more of an opportunity for Amigans world wide to become involved. According to ICOA, Laser's job for the next year is "to combine the roles of consumer advocate, opinion-gatherer, strategist and community liason." For more information on the ICOA, try: www.amiganet.org/icoa.



Win Digital Grooves

To celebrate the launch of their new CD. Audio Works are giving away five copies of Digital Grooves, a collection of 20 Amiga created tunes game soundtracks to moody computer game soundtracks, plus a

way. To stand a chance of winning a copy, correctly answer the following question on the back of a postcard name and address

The word 'digital' is derived from the Greek word for which part of the body? The first five correct applicants drawn from the bag after August 30th 1998 will get a copy of Alternatively secure your copy by

sending a cheque or postal order made payable to David Dewar for £5.99 to Audio Works, PO Box 3567. Milton Keynes, MK2 2ZN, For further

Eyetech deals

Evetech have announced improved specifications for their EZ-PC tower. Responding to comments last Siamese tower system. Evetech are upping the specification of the tower to include a 30-bit A4 flat bed scanner, 64Mb RAM on the PC.

The price remains at £999.95. Evetech claim that this makes it 40% cheaper than an equivalent specification Zorro 3 machine, with the added bonus of a free PC.

Eyetech are also offering people wishing to buy their 20 speed CD ROM drives (reviewed on page 58) a special deal. Cut out the voucher below and send it with you order for a 24 speed drive at the same cost -Evetech tell us the mechanism is the same make. The offer is limited Call Evetech on +44 (0)1642 713185 or see their ad. on page 39.



20x to 24x CD ROM Upgrade offer. Valid only with orders from Eyetech Group, Ltd. While stocks last. This voucher must be sent with your order to qualify.

In Brief

Kickstart Amiga Sale

There will be a second hand Amiga sale held on 30th August at Surrey. The Kickstart sale will charge an entry fee of £2. £1 to members of the user group. Sellers must book in advance, and pirates are warned to keep away. Contact Rob Gilbert (gibie@arrakis.com) or Greg Howson (01483 536430) for more

AmigaSoc reps UGN The UGN, the worldwide network

of Amiga User groups, has appointed AmigaSoc as their official UGN representatives to the UK. AmigaSoc have promised to work closely with other members of the UGN to provide help and support to all UK user groups. The AmigaSoc resource includes a database of UK usergroups on their website, www.amigasoc.org. All user groups not currently listed are invited to contact them for christ@uk.amigasoc.org for more

Fusion, PCx drop

As the PPC version of fusion gets into gear, Blittersoft have dropped the price of their current stocks of products. Fusion 3.1 and PCx 1.1 will now be sold for £29.95 each or £49.95 for the pair Contact Blittersoft on 01908 261466.

Amiga gets BSE

BSE, the Belgian Scene Event, will be held on the 7-9th of August in Diepenbeek, Belgium. This demo party will include competitions for 40k intro, demo, music and graphics. For more details check out http://bse.base.org or email: bse98@amx.net

Midwest Expo

The Amiga Central Ohio Network is organising a show for the 2-4th of October, to be held at the Hyatt Regency, Columbus Ohio. It will be the largest (by floorspace at least) US show, and promises a good list of exhibitors and seminars. www.amicon.org/mae.html.



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Stateside News

Amiga businesses, get listed

largest Amiga print magazine, are of the AC's Guide.

published twice a year until the fall

of Commodore, when production have been attempting to update turnover since 1994.

Since a new publication date has not yet been set in stone, it's not

too late to be included in the next Listings, as always, will be free in

the new edition. For more information, contact PIM Publications at PO Box 9490, Fall River, MA 02720, or

www.pimpub.com.



particular annual for foliant concernation that and the land of th

Sassenrath talks

The fundamental approach of his new REBOL project may be some news a lot these days.

He recently gave a lengthy inter-REBOL and his take on the future of computing. If you have access to (if you don't have RA abilities, you Sassenrath on this website.)

He is also slated to figure very heavily in developer and general user dissessions at the California AmiWest show of this summer. It may not be largest public push to date for REBOL Technologies will come at an

operations, also in California REBOL might best be described guage, but less than a new operating system. For some more information, check out:

www.rebol.com, or you can try and find one of the small handful of REBOL alpha testers and pump



Active Technologies	74	01325 460116
Analogic	IBC	0181 546 957
Blittersoft	17	01908 261466
Dassified	92-93	0171 972 678
pic Marketing	21,26-27	0179 3450988
Fyetech	39-41	81642 713185
ast Computers	22	0171 252 355
ere-Matt Home Computing	88	81793 853882
irst Computer Centre	94	0113 2319444
ialden Image	81	8181 900 929
liSuft	380	0500 223660
Dwl Associates	22	01543 250377
Power Computing	6-10	01234 851500
Selectafont	22	01702 202835
Weird Science	IFC-3	0116 2463800
White Knight Technology	60,65	01920 822321
Wizard Developments	50	0181 303 180

AMIGA.INFO

the slow redemption of the Amiga in the eyes of the North American computing press, Ontario's Monitor computer publication has added an "Amiga.info" section to its online version. The Amiga coverage is handled by Ray Binda and Thomas Leroux, and provides summary and commentary on current Amiga issues and products.

Presumably, a strong performance online could lead to actual column-inches in the magazine proper down the line. The

Monitor at 613-596-1358, or www.monitor.ca/monitor online.

Super CD-ROM 25



Welcome to CUCD25. This CD is crammed full of programs, games, utilities, mods and a host of other goodies. If you don't yet have a CD drive, this is your reason to buy one. Prices have never been lower and 650MB of quality software each month is just too good to miss out on.

How much of what?

AudioSpecial	68MB	Magazine	21MB
CDSupport	71MB	Online	38MB
System files	13MB	Programming	15MB
CDROM	22MB	Readers	18MB
Demos	23MB	Sound	62MB
Games	166MB	Utilities	20MB
Graphics	44MB	www	28MB
Information	4MB		

Making the most of CUCD 25

A ICUCDs are designed to be used whether you boot from the CD or you remail Workshort. It you boot from the CD or you remail Workshort, I you boot from the CD or you remail Workshort, you should first run ineCD. This sets up various assigns and paths needed by programs on the CD, so if you would not do it. High you don't do it. High you'll work it begreat make any changes to your don't do it. High you'll work it be desired in the remail part of the contract make any changes are the remainant and can be reversed by running intiCD again. The error now, and the fir means that you won't use the error again, even with older CDs.

Your own custom CD

In the past you had to use whetever file viewers we set up on the CD. aince these had to work with all finings they were qualle limited. From CLCD12 we decided to allow you to specify how the CD abund work on your Amiga and included CDPHs in the CDSupport drawer. If you have never un this before you should be asked if you want to when you in IntiCD. CDPHs is they only perfect and you want to use to handle each type of file, graphics card great to when you in IntiCD. CDPHs is to you specify which was consistent to middle files through their midd card, proprie with search can listen to middle files through their midd card, proprie with search can listen to modified their viewers and mapped givens available for their machines. It also means we were able to provide different defaults for Workshorth 2s users.

Once you have not CDHerk, your setting will be asset to your hand of wise and will be setted every time you use in CDD or any other CUCD. Some people had problems with the original use of Dice partly through a lack of explanation from us. All come row use CUCDHe as sher default to do in the previous Dip problems should be as the default to do in the previous Dip problems should be as the default to do in the previous Dip problems should be a sher default to do in the previous Dip problems should be a sher default to do in the previous Dip problems should be a configuration considerable of the problems should be a configuration of the configuration of t





AmigaAMP CUCD/Sound/AmigaAMP

AmigaAMP is not just another mpeg audio player. As well as supporting PowerPC and 680x0 processors for decoding it also has a compact but useful interface, looking like an audio CD player. But it doesn't stop there, AmigaAMP can use skins designed for WinAMP, the Windows port of AMP.



These skins completely change the appearance of the interface and there are hundreds (possibly thoudirectory contains well over 100 different skins, with an icon to start AmigaAMP with each one



ToolManager

CUCD/Utilities/ToolManager biggest time savers available. It drawers to reach an icon, you can hotkey. It also supports drag and

> and PPaint will the picture for Multiview (or · or played. This drag and drop

extends to setting ToolManager

MCP

CUCD/Utilities/MCP Since MCP was featured in the Workbench 2000 article in the January CU Amiga, it has under-

> latest beta version of has proven very stable beta. The advice given



These are Stake Total Conversions. They work with the full version of Stake but give you a com different same. There are many total and partial conversions written for PC Stake, and most of if ly different game. There are many total and parsum conversions have will work with the Amiga version, so match for more on forthcoming CDs.

still applies, try the options one at a time, if you try to switch everytrouble - this is a fairly powerful commodity

ProNET CUCD/Online/ProNET

Of all the various solutions for networking two Amigas without expensive hardware, ProNET is the most flexible and stable. You can connect machines using either the parallel or serial ports (or even the ProNET in the CDSupport drawer, complete with icons to start up either parallel or serial links, for those of you who want to link a

WebPlug CUCD/Online/WebPlug

It's impossible to have a WYSI-WYG HTML editor, since HTML itself is not WYSIWYG (What You See Is What You Get), but WebPlug does a good job of creating HTML pages though a graphical interface. Because you see the actual HTML code in the window, it helps you to learn and under-

stand what's happening, rather

than hiding it from you. AmigaWorld

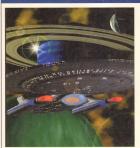
CUCD/Information/AmigaWorld AmigaWorld is a database of information on just about every country in the World. Using a straightforward graphical interface, you can see exactly where a country is and find out information about the country, it's currency, languages and much more.

Making things work

Wherever possible, we have tried to make software work straight from the CD, this isn't always reasons. Some programs need to be installed to your hard drive to work, often files. These files are usually on the CD so running InitCD often helps here list of system requirements in the documentation, and some will not run unless you have the required processor, memory operating system version or

Some programs, partic ularly demos and games are written in an OS illegal way. This can mean they ly work on specific ine specification netimes the readme states this, but not always. Many demos are intended to be run for a shell, the icons we add simply start them from a script. In som cases this will not work especially demos that need a lot of Chip RAM. In this case you will need to boot and run the program from the shell. Your Workbench manual should explain how

What's on this month's CU Amiga CD?



AudioSpecial:

A huge collection of software and utilities to help you create, process pieces. This includes special ver-SoundProbe, plus a copy of MakeCD so you can commit your production to CD and send them to us as a potential audio track for a future CU Amiga CD.

CDSupport:

This contains various support files, such as mod players, anim players, GMPlay, MUI, ClassAct, Most CDPrefs program lives. With this you can customise your CUCD to launch your choice of program for each type of file. Two other notable icons in here are Docs.guide, with links to all the program documentation files on the CD, and Index, Run Index, type in the name of a program, or part of it, and it will search the contents of the CD for you. You can either search the current CD or the index files of all CUCDs since number 4. CDSupport also contains icons to start ProNET in various configurations, ready to use when linking a CDTV or CD32 to another

CHCD.

This drawer contains most of the

CD contents, here is a selection of what each drawer holds.

CDROM:



contents database, along with a new " audio CD player. We have also added to the CDID collection. there are now over 6300 CDs here. Each one has the artist and title in the file comment, so it's easy to pick out the right ones

for your CD collection. Demos:

Not quite the mega-collection of last month, but there's still over 23MB of flashing.

ing demos.

Games:

this month, with

ons for Quake. There are also a couple of collections of game cheats, an update for Foundation, new editor and data files for F1GP and a huge FMV game.

Graphics:



The 3D renderer been updated and sion for 68020. 68040, 68060 and

PowerPC. There are also new file viewers, and updates for and backdrops to customise your

Information:



erence guides on Amiga system

AmigaWorld country database contains a vast amount of information on just about every coun-

Magazine:



tains support files magazine, such as

the source code for the C tutorimentioned in Wired World and the latest information on the universe of Explorer2260. There is also an update to last month's

Online



range of software Internet, but also BBS and networking software, as well as the latest news from Aminet and archives from the newly resurrected CU Amiga

We have a wide

mailing list. Programming:



information for programming in C, E, Blitz, with utilities for GadTools.

and support files.

Readers:



All your own work. games, utilities, mods, pictures you send us. If you think you can do better, do it.

In addition to the



there are utilities. players, mods and samples here, as well as the superb AmigaAMP mpeg player, with a huge collec-

Utilities:



www:







Blittersoft

Infinitiv Kit-S

Infinitiv Kit-Z3

23 board

Amiga International Logo

O Video Slot optional

O Easy Side-In Tray fitting

Infinity 3.5" "Snap-on" bey

CMCIA Angle Adaptor

IDE cable, 2.5" to 2.5" + 3.5"

180 MHz + 6806050 CPU

200 MHz + 68040/25 CPU

Individual Infinitiv Component Parts nfinitiv Tower + Keyboard interface

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Amiga OS 3.1 53.1 - Official Amiga OS Upgrade

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6

, plus

£ 25.95

iga 1200, Arriga 3000 (Inc. Tower) £ 29.95

in be further improved with add-on modules.

Tornado 3D DMAGOO

Tomado 3D V1.5 boasts

ormC V3.0 Base Package rmC V3.0 Base Package rmPowerASM V3.0 ormWIZARD V2.0 = GUI creation rmC V3.0 - p.OS-Module

mC V3.0 - PowerASM-Module separate RGB colour setting, S-VHS, Video

Hard Drives / CD-ROM

Gh IDE Hard Drive UDMA 2 Gb IDE Hard Drive UDMA

Memory / Storage INVASCANC LOTON 199Mb Drive SP Drive 100Mb IDE Internal

Micial Amiga Approved ScanDoublers pussedly AMIGS

Digital Monitors, require ScanDoubler or Picasso IV

Prelude support

No wonder CU Arniga clai

necrated flicker floor, 4Mb EDO RAM

Concierto IV Yamaha OPL3 synth

Two Midi connectors plus Mixer

Pablo IV

Palama IV

All TV images displayed in a 24-bit window Captured signal can be mixed with computer Use with Pablo IV to produce a digital genlock.

29.95

AsimCDFS / MasterISO V2

200 MHz + 68060/50 CPU 233 MHz + 68040/25 CPL AsimCDES 233 MHz + 68060/50 CPU MastertSO Version 2 is an advanced CD-R/RW system CuburStorm MKIII 68060/50 MHz Bizzard 1260 50 MHz 68060 CPU MasterISO V2.0 Blizzard SCSI for Blizzard 1230 or 1260

AWeb is a fully featured web AWeb Get It browser including

£ 29.95 AWeb II V3.0

PC

FUSION

Floppy Drives - High Density No Software Patch! Floppy Drive 1.76Mb int. for A4000 1" high Floopy Drive 1.76Mb int. for A1200 1" high

EUSION - The ultimate Software Mac Emulation!

stem 7.1.0 or later, comatible Macintosh ROM's).

mputers Tower Kits

There was a second

As per 1300 plus O As per 1300 plus

23 board Zorro III x 5, PCI x 2

Infinitiv 1200 Tower Kits Infinitiv 1300 Infinitiv 1400 Infinitiv 1500 New Design - Metal Sub Frame

External Arriga

parently AMIG

Video x 2, (1 on 3000), PCI version had 3 x PC Tower 4000 PCI System (Tower and Zomo-PCI Tower 4000 EA System (Tower and Zomo-PCI Zoma BIBSA/PCII/Vd (An000 - board only) Uprated PSU (state 3000 or 4000)

Metal CE Tower, Zono III skits x 7, ISA skits x 5 (5 on 3000) Video x 2, If on 3000). PCI version has 3 x PCI and 3 x ISA

Front bezel (Fit 3.5" device in 5.25" bay) Phase 5 Accelerators Lowest Blizzard PPC 603 DOD MHY 68D4D @25MH

250 MHz 68040 @25MHz

250 MHz 68060 @50MHz

Blizzard PPC 603+With Fast SCSI-II 160 MHz 68040 @25MHz 200 MHz 68040 @25MHz 250 MHz 68040 @25MHz Fusion and PCx - Emulate a Mac or PC Quite simply the ultimate Macintosh emulator on ANY platform! New Version 3.1 with. Syste

8.1 support Macintosh emulation is slick on the Amiga, and offers a wealth of software to be used in conjunction with your Amiga. Fusion takes advantage of graphics cards, SCSI, CDmounted on the Worksberg and there is a comprehensive list intrinsic mechanism with the incomplex space term and huge database of file types. With on the fly resolution switching, full System 8.1 support, Fusion is the too Mac amulator for the Amiga, (Requires 69020 or better, 4Mb Fast RAM, 20Mb Hard drive space

PCv Advanced activers only 80x86 PC emulation for your Amiga

ation on your Amiga. PCx will run DOS and Windows 3.1 in standard mode, and takes

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Buffered A1200 4-Way IDE Interface

DISKS **Samplitude CD**



Both CD and cover disks this month come complete with Samplitude CD, an excellent sample editor and CD audio preparation application.

Features

- Professional quality sound processing
- Audio image preparation features
 Multiple sound card support
 100% Compatible with stock A1200



Installation and setup

Installation of Samplitude CD is easy. Boot from your hard drive and then drag the Samplitude icon from the cover disk or Audi Special drawer of the CD to wherever you want it installed on your hard drive. Now double click the icon you've just put onto your hard drive to initiate the installation. Once installation has finished you can run Samplitude straight away. Select Update from the Workbench Window menu to reveal the installed Samplitude software

nplitude CD is a special version of the latest release of Samplitude Opus, reviewed in this issue on page 56. It

offers everything you need for recording, editing and preparing data for audio CD ROMs, and along the way acts as a capable sampler and sample editor too. All you need to burn your CD is a CD writer and a CD writer progRAM that supports the new 'AJFF-CD' extension of the AIFF audio format MakeCD is currently the best choice for this, which can also be found on this month's

record data from Maestro Pro sound cards (digital IO cards manufactured by MacroSystems), all Toccata compatible cards (like VLabMotion) and all Prelude compatible cards (like the range of parallel port samplers is also supported. Playback via Paula (Amiga internal sound) is also possi-

Samplitude uses a complex hard drive memory system which allows you to work with samples complete ly residing on your hard drive. In order to get the best speed you should follow a few simple rules:

Use a filesystem block size of at least 16K if you want to work with long samples. To set your filesystem block size to a higher value follow the documentation of

your SCSI or IDE controller software. Use a controller on your CPU card or on your motherboard, not on the Zorro bus. Controllers on the Zorro bus tend to block the system

Set Samplitude CD's internal buffers to a size divisable by the filesystem's block size. For example, when using a filesystem block size of 16K, set Samplitude's buffer size to 16, 32, 64 or 128K.

Use DOS access when working with slow setups, and use DEVice access when working with should try this out. In most cases a DOS access will be faster than DEVice access. DEVice access can only be used with filesystem block sizes of 512 bytes.

To adjust your settings start Samplitude CD and press 'g' or select Preferences/System, After changing everything according to select Save Setup from the Preferences menu. Next you should open a new project or load an existing project into Samplitude CD. If

▼ Samplitude CD offers a wide range of sampling and recording possibilities

deGram LIGHT V2.5L0 B 5DC D / R.C.T. 1997 C: 1.090.692 F: 15.1 国文学の対象を

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Ranges and cursors are used in creating AIFF CD images. A range defines a CD track while a cursor defines an Index.

This gives you the opportunity of sampling a complete record's side in one take. Select the single titles as ranges (leaving the space between them untouched, thus sparing editing time), store the ranges and eventually create cursors within the ranges (these will be converted to index markers on the audio CD). Creating a CD copy of a record can be done just seconds after having sampled the complete record! Of course, duplicating copyrighted material is against the law. Here's how it's done anyway...

Simply do an AIFF-CD export to create the audio image. The parameter window popping up will allow you to choose some parameters. Usually you should leave them just the way they are. Index markers and Tracks are what you want, so disabling them in this window will result in a standard AIFF file, which could have been exported by the standard AIFF exporter as well. Copyright and Emphasis can be set if this is desired (usually you won't have Preemphasized audio data).

AIFF-CD is an extension to the standard AIFF which can be interpreted by MakeCD and quite probably other programs as well. Prelude's Graphic Tape Deck is already being expanded to support AIFF-CD track and index markers. If an application can not interpret the TrackInfo Chunk it will still import the complete sample data. Importing AIFF-CD images will create the track ranges and index cursors automatically. If you do not see the ranges right away, open the range manager and manually select them. AIFF-CD Images can currently be exported by MakeCD.

The AIFFCD extension is (C) 1998 by Patrick Ohly, Developer support is given by the author and A.C.T. who participated in defin-

ing the extension Samplitude CD is a complex program. You can get used to it by trying out the functions and playing around. If you have any problems you can contact A.C.T. directly at any time. There is also a mailing list to which you can post questions.

you do not have a project to load, select Projects/New/RAM. Now press 'p' or select Effects/ PaRA Meter. You should adjust the playback bardware setting. If your systems is equipped with one of the supported sound cards you will be able to select it with the mode gadget. Close the window and again Save Setup.

their file format. So if you want to explore the progRAM's capabilities. press Right Amiga + I or select Projects/Import/General and try to import some of your sound files. Samplitude CD will ask you whether you want to create a RAM or a hard

tages. Their # > 0 PER-8 / R.C.I. 1997 (1 1.896-292 F: 11.782.6 203 Loop 16 meet 10 Dits A: 160,500 M: 307,600 use depends on what you ____ want to do. THE PERSON NAMED IN THE PERSON NAMED IN THE Disk Projects keep their sampling data on your hard drive (usually in water thinks the assign - see Further setups'), giv-

A Multiple sounds can be worked on simultaneously.

14 44 4 13 Q 200 Q 201 F 84 84 A 131 Q 200 Q 201 Y

First steps

major sound formats, auto-detecting

these projects is that editing them

space to work with - is considerably slower than when using just RAM

RAP: RAM Projects are based in are limited to your system's memory.

Generally you should use RAPs if you want to edit data (cutting, data. HDPs are loaded much faster of the sample data is actually loaded, not the sample data itself

To pop up the current clip press the ESCape key. The project clip can be handled just like any other project and can therefore be saved

Converting sample properties

In Samplitude CD the Pitch Shifter/Time Stretcher capabilities are disabled (like most of the high end functions available in Samplitude Opus), but you can use the Resampler. Imagine you imported a 22kHz IFF sample and

want to burn that to CD. You need it in 16-bit 44kHz stereo, so you

should resample it to 44kHz first. DSP/Resample. click on 44kHz and Remember to

change the project's parameter to 44kHz. Now press 'p' or select The next step is to is not in 16-bit Effects/

ProjectSpecial/

Change Resolution select 16 and click on Convert. The ject out of a mono one. Select Effects/ Project Special/ ProjectStereo or press 'I' on the numeric keypad (the key above 8).

That's it, you now have a CD ready Note that although the resam-CD already is very good the full version will give you studio quality with nearly no windowing frag-

System preferences RAM-Project: Create clip-B Originat

HD-Physical: 16K HD-Playlist: 16K HD-Record : 64K Disk access-Device DOS AsyncIO Mixing precision Playback Roune ing Hedium Hedium Rdvanced M Advanced

Parameter Mixer 18363 1 - 100 Other 48000 44188 +6-+3-0--3--6-Free -18--20-Mode--38-[Toccata -49-V Loop -50--68-Reverse Off-Over A Select the output device and rates from here

data into Samplitude CD you can start editing it. Click somewhere down the mouse button and move the mouse. A range will be created The reason for ranges being created "rectangulary" is that you can make offset adjustments with Samplitude drive project. These project formats (Voltage offset etc.). If you prefer a both have advantages and disadvantime space oriented range only, simply activate Preferences/Vertical Fix.

When cutting data from your sample to the clip board there will be a delay while Samplitude Opus transfers data to the clip. You can adjust the way clips are created - if you want to use the same kind of project you are editing in the clip as well, set Create Clip to Original in the system parameter window you always want to create RAPs when creating a clip, set it to RAM - or if you want to have HDPs, set it to hard drive. This way you can easily convert an HDP to a RAP and vice versa - simply adjust the clip project type, select your complete sample and press 'c' (for copy).

▲ Configure Samplitude CD to suit your system

Reverb, echo...

Samplitude CD's fading capabilities are not limited to linear fade in or fade out like many other applications. Audio volume has to be handled logarithmically, so LOG, LIN and EXP fading characteristics have been implemented. To do a fade out at the end of a long sample select the range where the fade should happen and press 'f' or choose Effects/Amplitude/Fade. The window appearing allows you to adjust anything you need for amplitude manip-

Reverbation is implemented in the common way (create lots of echos). The parameter window's options should be self explanatory The same applies to Echo. Note that Convolution, the realistic room simulation using room-samples with filter characteristics, early reflection detection etc. is available in the 'big' Samplitude Opus version only.

Ranges and cursors Samplitude CD can handle as many

ranges and cursors (positions) per project as you want. RAM permitting. There is a Range Manager available from the Project menu (you can pop up the Range Manager's win-

Upgrading

If you like this software you can upgrade to Samplitude Opus LITE or Samplitude Opus (full version) at a special upgrade offer price. Samplitude Opus LITE and the full Samplitude Opus give you everything Samplitude CD offers - and a lot more, including non destructive editing in virtual projects, playlist handling. high quality mixing (full version), several tracks (four in the LITE, unlimited in the ful version), high end FFT functions (and a studio quality denoiser), SMPTE support. MIDI TC support and other goodies. Please visit the Samplitude webpage at http://Samplitude.amiga-

software.com. Prices are as follows, based on upgrading from the cover disk version: LITE: 50DM (£15) Full: 350DM (£110) Add 10DM for shipping on orders from outside Europe.



dow by pressing Right Amiga + J). Ranges and cursors can be named (Range/Store/Other or Range/CursorStore/Other) or put on hotkeys (1 to 10). To put a cursor on the numerical keys on your keyboard press Shift+key (e.g. Shift+1 to store the current cursor on key 1). To store ranges to the function keys press Shift+FKey. To select a previously stored range or cursor press

the corresponding key without shift. To remove a range, pop up the range in question (using the Manager or pressing the hotkey if it. is a range in the first 10) and choose Range/RemoveRange. To remove a cursor select the marker at the top of the sample window and move it to the right or left - out of the screen





Contact details

Samplitude CD is developed by A.C.T. You can phone them Monday to Friday from 10:00 to 12:00 and 14:00 to 17:00 or send a fax or email to them and they will respond as quickly as possible. There is also an English mailing list being run. If you want to participate in that list, please write an email to ListServ@act-net.com and tell them to subscribe you A.C.T. - Albrecht Computer Technik Seth 2

21769 Lamstadt Germany

Voice +49-4773-8910-73 Fax +49-4773-8910-72 e-mail: support@act-net.com

WolfPac

WolfPac is a 3D, first-person perspective version of PacMan. If, by some strange chance, you don't already know, the idea of the game is to run about a maze gobbling pills and avoiding ghosts. There are two types of pills: normal orange ones and blue pills. The blue pills will make you invulnerable to the ghosts for a short time (the ghost will appear to be half height). You will advance to the next level when all the pills have been eaten. Simple

WolfPac will run on any AGA Amiga with an 020 or better and 4Mb of RAM, although a faster CPU and a graphics card are recommended. A PPC version is also supplied which requires a PowerUp board and ppc.library V45.16

To start the game all you have to do is double click on the WolfPac icon (or WolfPacPPC for the PPC version). You will then be presented with a screen mode requester. A screen size of 320x240 is recommended. The PPC version will be playable with larger screens, though. If you need any more instructions, read the guide file provided. Have fun.

Game Controls

Keypad 8/Cursor up Keypad 4/Cursor left Keypad 6/Cursor right Keypad 5/Cursor down Keypad 7/Alt + left Keypad 9/Alt + right

Turn left Turn right Move back Side step left Side step right Toggle fps display Toggle floor rendering End game

Move forward



Sound Probe 2 demo

We've got you an exclusive demo of HiSoft's Sound Probe as well this month. You can play with all of its many and varied effects for as long as you like. The limitations are that it won't save out files

and only the 8-bit disk storage system is implemented. This is more than enough to give you a taste of what it can do for your sounds. See the review in this issue for more details. The full program is available from HiSoft for £24.95 Call them on 01525 718 181.





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ontusea You won't be.

It's all a mess, isn't it. First there was PPC, then the BoXeR, then Inside Out and Pre/Box. Now Amiga Inc has a Superchip. Confusion reigns but not for long!





asked by visitors to the World of PPC?" The news of the announcement was out, and all the people who had turned up cash in thrown into a state of confusion as to what to do with their hard - earned cash. It was bad enough when they had to decide whether to go for a PowerUp card or wait for a BoXeR, but Amiga Inc. gave a lot of people a real decision headache. The Amiga seems to have switched from heading no-where to heading all over the place in a startlingly short time, and pretty much everyone seems to have been caught on

The players. The main players in the unfolding drama are DCE, phase 5, Haage & Partners, Access (formerly Index), Power Computing, Amiga Inc. Blittersoft, Siamese Systems, and Amiga International. The minor players are many, and some may yet play major roles as the play unfolds. Before we delve too deep, let's look at the basic facts one step

- Amiga, due out in 2 years. Future Amiga is based on a new "Superchip"
- Haage & Partner and phase 5 have announced co-operation. Amiga Inc will have a developer's
 - machine out in November. InsideOut, the Amiga on a PCI card, which plugs into a PC, is due in the
 - phase 5 hope to expand the PPC line and develop PPC Amigas (Pre/Box)
- by the end of the year. BoXeR will be out in the summer. DCE and Power have dropped the A5000, but are rumoured to have replaced it with an exciting new project.
 - Amiga Inc is behind all of these "Classic Amiga" projects, and want to see them prosper in the time between now and the release of the Future Amiga.
- Phase5 want to run the future Amiga OS on PPC, and Amiga Inc. have something they would like to see.

So what do all these options offer?

PowerUp. Available: Now.

anyhow!

An upgrade path to modern CPU power.

Can bring vast processing power and powerful 3D graphics to your Amiga, phase 5 hope to be able to license OS4/5 to run on PowerUP cards.

designs: left phase 5's Preffex, tee the Amise DS 4 developer's marhine

Name that Chip!

Amiga Inc's secrecy over the chip company who are making the new Superchip has given rise amongst Internet regulars to an enormously popular new game of chip company guessing.

The rules are simple. Locate a possible candidate, mention them on the newsgroups. Then wait while five people tell you your guess is the best one yet, five people show you major inconsistencies in the argument, three people say your wrong (while hinting that they are in the know), and two people tell you to shut up before Bill Gates reads your posting. Amiga Inc have assured us that whoever it is, there isn't actually any information about this project on the 'net, so we won't find it. Never mind, it is fun

BoXeR.

Available: August

Advanced modern Amiga design. 68060 up to 75MHz, EIDE, PC standard components, faster chip RAM, 2Gb RAM capacity, ISA stots, custom slot for planned cheap PPC upgrade.

Inside Out.

Available: Summer

PCI board with full Amiga functionality. Retargets to a host PC over the PCI interface, using Siamese software but many, many times faster than Ethernet.

Developer's system. Available: November.

Basically a PC equipped as above, but will run the new OS4 on the PC side instead of Windows.

Pre/Box. Available: Early '99 Powerful PPC based Amigas with one or more PPC CPUs. Could eventually come in a version with several 1 Ghz Altivoc G4 PPCs, a prospect that would make a Cray owner jealous. If deals are signed, it will eventually run OS5.

BoXeB 2.

Available: late '99? Early days yet, but could have PCI. A pro-

grammable graphics chip is planned which would replace the AGA chips with a single custom unit capable of all the old AGA modes. Also extended graphics modes such as 800 by 600 24 bit.

Future Amiga.

InsideOut

▼ Inside

Out, the

Amiga on a

PCI card.

Available: late '99, early '00. A hardware/software system that will be

A hardware/software system that will be made available to third party manufacturers Based on the Superchip, very powerful and could cost as little as £300. Likely to come in a range of different shades including games console, set

top box and A1200 style cheap home computer.

An issue of OS.

the rather dated AmigaOS3.1, and two incompatible PPC kernels, PPC.library and WarpOS. All this is changing. Amiga Inc are working on consists of an API layer sitting on top of an off the shelf OS core such as BeQS or hardware abstraction - rather than programming to the processor directly, they program to the OS. This will include some bly OpenGL for the 3D graphics API, and will probably include Java and extended AREXX. It will be fairly fundamentally different from OS3.1, most visibly in a tweaked GUI and 24bit screens as standard, but will have Amiga trademarks such as Datatypes, but probably in some expanded form. Most of the familiar file structure of the current Workbench such as devs, libs and so on will continue on in the new OS. OS4 will be followed by a full Operating System. AmigaOS5. It is not clear at this point whether the bought - in OS core will still be used, or whether there will be a custom core written. OS 5 will be fundamentally very similar to OS 4 at the user and the application programmer level.

phase 5 and Haage & Partner are working together on a PPC kernel, which will be backwardly compatible and contain many improvements. It will include Haage & Partner's now nearly complete 68k emulator, so it will run on PPC only machines such as the forthcoming Per@ox machines

The two companies have also said they would like to do an OS3.5 themselves, but that is down to Amiga in a gareing to such a thing, Everyone we have spoken to at Amiga inc. and Amiga international seemed very keen on this idea, and there might even be an agreement by the time that you read this. OS3.5 would run on current.



FAQ

So let me get this straight; there are going to be new Amigas in November?

Not exactly. There are going to be Amiga bridge systems, PCs with an Amiga Operating System running on them. They will probably be dual hardware systems, including a very high end 680x0, OS3.1 Amiga in the same case. The real new Amiga will come out in November of next year; the developer's bridge system merely emulates this.

o. Then it's true that the new Amiga is going to have an Intel processor? I might as well give in and buy a PC.

. No. no. no! The new Amiga is not going to have an Intel processor in it. The bridge system runs on an Intel compatible, but this is merely for development purposes. OS4 will run on x86 as an intermediary measure, as it will allow developers to start working on the new system very quickly, around a year before the full system is available. OS5, the real Amiga OS, runs on the new "superchip" which is not Intel – Intel processors are inferior and far more expensive. Nothing Intel is working on really suits the needs of the Amiga, and the guys at Amiga Inc are perfectly aware of this.

 Why are the development systems x86? Why not 68k or PPC? I don't understand the need to drag us into Intel territory, even for only a year.

Look, the really is an issue below not of all proportions. Unless our as a developer, out for test predictions and the reserve state. All the state is a state of the state of

opment systems taking advantage of the Amiga's ROMWHACK debugging feature.

So this new Amiga – it's going to be a set top ox, right? I mean they say otherwise, but all that alk of digital convergence makes it pretty clear hat's what they mean.

No. The whole point of the digital convergence philosophy is that the hardware and software will be appropriate for a wide variety of applications. Amiga OSS will be developed in a modular fashion which will allow a number of different "flavours" of front end to be developed with the end application in mind, which may well include set to plox.

However the top level of the OS will be a ophisticated dealtop computer environment -you have to work to the top level to cover all the bases for lower specification versions. Although Amiga Inc. wants to produce a system highly appropriate STB use, their reference designs will be for home computers.



▲ Concept design for one possible layest of AmigaOS4.

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Amiga systems as well as upcoming designs in what is rapidly becoming known as the "Amiga Classic" line, and may be

Eventually, OS5 machines will come out and at the moment, at least, everyone seems keen on the notion of OS5 being ported to PPC. Due to the way the new OS is programmed to, there would be a very high level of compatibility between the PPC and Superchip versions

For my money... There are a number of models of Amiga on

the way, and if you think it's getting confusing, you should see what it's like buying a PC or a Mac. CU Amiga will be bringing you the low down on all the new systems as they arrive. The principle question people are asking is "should I wait?" The answer is

if Amiga Inc hit all their targets, the new machine is 2 years ing to wait up to 3 years, then what hap pens when the time comes? There will no else marvellous in another 3 years, do you wait for that? 3 years is ing. In 1995 the 486 was king of the PC hill, yet

machines. If you only have to update your Amiga every 3 years you're doing very well! If you want your Amiga to get any faster



A Concept for another AmieOS "Rayour" that might be more appropriate to a set top box.

► Blittersoft's Black Box BalleR tower system.



in the next 2-3 years, that means PPC, You'll need it if you want to play more advanced games or run more powerful applications.

If you are happy with your current machine, a PowerUP card seems the best plan, while if you are after a whole new system, a BoXeR or Pre/Box or whatever DCE/Power do will be the answer. If you need PC/Alpha integration, get a Siamese PCI. In a couple of years, look for our review of the first of the Future Amiga systems, but until then Amiga Classic certainly has a lot of life left in it! Andrew Korn

I mean it sounds pretty hot, but will it really hap-

Well no one wants to count their chips before they're silicon, but our understanding is that this is in a rather better position than most. The development is apparently very well progressed, and enough money has been pumped into it to be confident that the investors aren't going to let it fall apart now.

As for hype? Yes, of course there is an element of hype involved. The superchip is not the only piece of revolutionary silicon architecture that is planned for this time frame, and at the moment there is no reason to assume that it will be any better than some other things out there. The critical point about it is that the Amiga will be adopting it as a core technology from the word go, and the operating system will be designed to take these next generation functions into account.

Other people will have similar hardware, but no-one else will have the dedicated computer system that will allow the hardware to be used to its fullest. The other platforms retain a legacy of older architecture which holds them right back, either in terms of power or cost; there is every reason to be confident that Amiga Inc. are

I'm certain it is not Project X and almost certain it is not Transmeta. For a start, both these are far too well known!

As far as we can figure out from the hints and snippets, it is a company, or a subsidiary unit, or an investment combined set up for the specific purpose of making a chip to meet the needs of future computing. We suspect that it is backed financially by a number of companies with a strong interest in this line of developments, perhaps not companies not normally associated with CPU manufacture

We have been told that they have been working for some time on this and have a good number of very skilled staff on the project. As for any names or places, you know as much as

No. really, we don't know.

Yes, but it is not is quite clear how yet. It could be a software emulator along the lines of UAE, which should run pretty well on a future Amiga (the nature of the superchip makes it very good at emulation, or it may be transparent, as 68k emulation is on PPC Macintoshes. The latter would certainly be preferable.

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Video Toaster Pops Up Agair

It sparked a desktop video revolution in America but never made an impact east of Boston. However, with prices lower than ever, NewTek's Video Toaster now looks a very attractive prospect for all of us.

T is the card that started the 'desktop video' movement. It's the card that made of the card that made of the card that made to the card that made to development to de video' movement to de video' the card that put the major the major the that put the major that the video' Toster has been the Arrigaco the Video' Toster has been the Video' to Video' the Video' to the Video' to Video' the Video' to the Video' to Video' the Video' to Video' the Vid

If you've never seen or used a Toaster, you've probably been fobbed off with a vague description of it along the lines of 'it does video'. Ok, but you'll probably want to know exactly what it "does" to video. In a mutshell, it's a video cand that acts as a realtme multiple input switcher, wiper, effects generator, gerlock, keyer, moer and titler, and it does all of this all broadcast TV

The trouble is that it has the rather marked flaw of being designed to work only with the North American/Japanese NTSC video standard, which opalies willy the rest of the world hasn't got in on the act. The explanations for why there has never been a PAL Toster vary widely, but the sixty seems the revolved around they there has never been an PAL Toster vary widely, but the sixty seems considered to the control of the contr

TOASTER

teristics of NTSC which do not exist in PAL. While there certainly may be PAL tricks which don't exist for NTSC, nobody has exploited these in the same way NewTek has with their Toaster. So, the bottom line remains, if you want to Toast, you have to do at in NTSC.

Of course, NTSC and PAL are not insurPAL countries: — in evidence because
PAL countries can watch Friends and
Americans can watch Dector Who. But
because of the hassle and expense, relatively few people have dered to wonder about
using a Tossetr in Europe. Today, however,
with video equipment in general and the
Tossetr in particular dropping rapidly in
price, it may be time to take a close look at
the crowded filte wonder card from Kansas

The Toaster revealed

So, other than generating a market for thi party add-ons with unfortunate names (Marmalade, The Toaster Oven et all) what the fuss all about? What does a Toaster of that might be remotely interesting to a sous video producer, let alone the average ones.

The Toaster itself is a monstrous card that fits in the video slot of any suitably equipped Amiga. It has a few 'sandwich' boards, making it a very large and heavy thing indeed. In most Amigas (such as 3000s, 4000s, 4000s, and most tower oversions) the sheer size of the board blot.

Box of tricks

The core of the Video Toaster is the 'switcher', which essentially replicates a television switching board. The incoming video from the four inputs can be routed directly through, switched instantaneously from one to another, or 'A/B rolled' using one of hundreds of effects. The applications are as simple as using the quick-switch abilities to run a talk show or newscaststyle production with two or three cameras set up across a studio, to using the Toaster to switch live between a camera and an AV device (like a VCR, a laserdisc, or a computer) for presentations and instructional videos. All of the functions can be mouse or keyboard driven - at one point, stickers were available to paste over every single key to show each function at a glance, giving serious Toaster users easily identifiable rainbow keyboards.

When the talk show or news ends, the Toaster has a built in character generator which can be used to roll the credits. It this sounds like a minor point, many Toasters were sold exclusively to replace dedicated character generators which themselves cost thousands of dollars.

The applications for using a Tosater live are enormous. Many small IV stations and public access cable centres base their entire studies around Tosaters, to de overything from the averything from the averyt



One of the Toaster's transitional effects in action. A simple animation becomes a rathelaborate way of switching from switching from nel to another.





a second slot. From the outside, you'd hardy notice anything unusual – six BNC-style connectors poke out from the back-style connectors poke out from the back-style connectors poke out from the back-style outside the plate. Four are for video inputs, another is the main fout display, and the last is used as the preview monitor. Since visual settled to the proview monitor is fine visual effects typically involve some sort of transition from one image to another, preview holds the image you will be moving to.

The Video Toaster comes in two flavours - the original, and the Video Toaster 4000. The significant difference is that the 4000 version takes advantage of AGA, allowing for more colourful effects and animations. It also is the best way to use the Fiver editing board. And since it was designed after the release of the A3000 and A4000, unlike the original, it is better suited for fitting in more types of machines - stories are legendary of the hassles of fitting an original Toaster in any machine other than a 2000, simply because they don't have the generous amount of internal space available to 2000 users. Speed and memory require ments vary depending on your patience level and how much work you need the Toaster to do - an 040 and 16MB of memory, along with a good-sized hard drive to store lots of animated effects, is considered a very well equipped Toaster

As seen on TV

The Toaster is well equipped for live broadcast, cloped circuit, or live-trapia productions levish little or no editing after the factl. But I can also be used to create standalone special effects – one of the classic demonstrations involves using the Toaster's "static fuzz' transition to beam objects in and out from a live video image. The trick takes just a few seconds to pregner, and while it won't be instalan for the effects being produced at Industrial Light and Magic these

days, it's just one example of the power that has been placed inside a humble desktop computer. For those results, firing ou Lightwave is the answer. Now that LightWave has been sold in standalone versions (and for other platforms) for so many years, some have lost track of the fact that for years.

Other switcher effects are perhaps not so practical, such as the cows which fall from the sky and pile up, obscuring the image until they fly off, revealing the new one. With special software, new transitions can be created, and the results are so impressive that it's been used, quite often, on broadcast TV. The long-tunning Home Improvement used the Toaster for its custom transitions (usually at least two or three per episode).

To round out the package, the software includes a paint program, and a mode called ChromaFX, typically used to generate wacky colous-cycling effects, good for anything from DJs to budget so-lif producers. The paint program, Toasterpaint, is essentially just a HAM paint program and is not very



▲ The best advert for Teaster — what its users have achieved.

well respected – fortunately, you can also incorporate graphics created in other programs as long as they have been converted to the Toaster's Framestore format, which many image processors will do for you.

Like a real studio, the Toaster also provides an entry point for other video technolory. For example, out of the box the Toaster provides Turnianace keying' which is a more primitive version of the "blue screen" (or chromianace keying) used for so many special effects. With a relatively inexpensive add-on box, the Toaster gains quite respectable blue screen capability. Thirdparty manufacturers who have designed

NTSC vs. PAL

Video is a very technical medium. There is so much going on beyond what you see on the telly that it gets to be mind-boggling if you really start to break down the science of it. But because the Amiga was built so intimately in tune with video, many of us have at least a basic grasp of the differences.

The most important differences between NTSC and PAL are a question of esculation xx refersh rate. In NTSC countries (primarily the Americas and only countries (primarily the Americas and only countries to the NTSC countries and office countries and the NTSC countries and office countries and the NTSC countries are not to the NTSC countries and the NTSC countries are not the NTSC countries and the NTSC countries are not the NTSC countries and the NTSC countries are not the NTSC countries and the NTSC countries are not the NTSC countries and the NTSC countries are not the NTSC countries and the NTSC countries are not the NTSC countries and the NTSC countries are not the NTSC countries and the NTSC countries are not the NTSC countries and the NTSC countries are not the NTSC countries and the NTSC countries are not the NTSC countries and the NTSC countries are not the NTSC countries and the NTSC countries are not the NTSC countries and the NTSC countries are not the NTSC c

nes il) what's aster do to a seriverage

tably dwich' heavy h as ower conrd blocks complementary video products can add their controls directly to the Toaster's own interface screen. And then there's the Video

Price drops

Recently, Tosater systems have begun to self or vastly reduced prices. The original Video Tosater card was introduced at over 10252000 (roughly £1500). The original Flyer price was US\$4000 (roughly £2500) and that of course excluded the actual Arriga, plus video-grade hard drives for the Flyer Nov, NewYillac forther prices was US\$4000 (£3100) all told. Video drives for the Flyer and \$100 (£3100) all told. Video drives for the Flyer are still premedious, and of course, and of the original flyer for the flyer are still premedious, and of course, and of the original flyer flyer

The Flyer

The Fiyer was NewTek's attempt to do for video editing what they had already done for live broadcast—make it cheap, good, and on a single eard you can plunk into an Amiga. As much as the Toaster can do, if you want to create a complete production, involving lots of footage shot over many days in many locations, it can't hely oup up til all togother, even though its switching and effects probably came in handy while you recorded all that taon.

Putting it together in a seamless, attractive manner is another story. Traditional editing consists of multiple video tape machines, which are run through dedicated editing and effects consoles. The consoles can stop or roll your various tapes of footage on command and on the fly while the 'program' (final product) tape records. Because videotape is a linear medium, this can be a tedious process. The Flyer, like other nonlinear editors, allows you to digitise all of your recordings onto the computer and then chop it all up and reassemble it in whatever style you choose before outputting your final product. In the computer, videographers gain the same luxury film editors have always had - they can literally tear their work apart frame by frame and reassemble it, but until computers and products like the Flyer came along, there was no way to break video out of the streams of tape. And just like that, the desktop TV station turned into the desktop TV station plus editing facility. All you do is put some high-grade high-storage hard drives on the Flyer bus, and you're ready to make serious stuff.



downward in priceper-megabyte (or in

this case, gigabytel. This has also created a lot of pressure on the rather active used market for Toasters and related gear. An original Video Toaster has been known to self for just over £200. This has allowed all sorts of people who could only dream of one day owning a Toaster to take the plunce and have one

in their home. At that sort of price, if you're interested in experimenting with video, it suddenly becomes very tempting.

Technical considerations

There are other considerations to make, Video, like most creative media, is the sort of pursuit where you can spend as much money as you have and still not have "enough stuff". Without a video source and a place to record your video, you have very little to work with, unless you plan to use it solely with computer graphics to some sort of live video output, like an LCD projector or monitor. This is fine, but an underuse of the Toxatter's abilities.

South of the section of the section

The quality of your input and output does matter. Using regular VHS tope to go in and out is not going to be pleasing to the eye. With each component your video moves through, the signal depletes, so it's best to try to at least begin with good quality video. For early experimentation, VHS is as good as anything, but you won't get gorgeous results.

What you'll need

None of this matters unless you get around the problem of the Toaster not being a PAL device. But it's well known that Toasters are in use all over Europe and beyond – one American dealer distinctly remembers putting together a Toaster/Fiver package for a member of the royal family of Oman. Because it is something of an underground affair and not without cortain disadvantages and extra expense, using a Toaster in Europe is not an exact science. but with the



help of Chuck Baker and John Fletcher of NewTek and Dan Sorenson of Clackamas Computers, here is a thumbnail sketch of what you need if you want to get started.

A video-slot equipped Amiga system. This means a 2000, 3000, 4000, 4000, 4000T, or an 41200 with tower busboard that includes a full video slot implementation. The BoXeR motherboard should also suffice, as it is being earmarked for Toaster sales in the US.

 A 115/120 volt, 80Hz power supply for the Amiga system. Most modern PC power supplies come with a little slider switch which toggles between European and American power standards. If your system does not have one, you will need to replace







* A heavy-duty (1000 watt or better is your now-115V Amiga. To give you an idea what sort of expense you can expect. Mr Fletcher, who used his Toaster while living in Germany, bought a 2000 watt model from a

* Either of these items: an NTSC 1084 monitor, or a device known as a Sync Strainer. The Video Toaster relies on a certain signal to be provided through the RGB port of your Amiga in order to properly initialise. That signal can be found on a 1084 monitor, or can be provided by the aforelittle box that will set you back about £30. The Strainer was originally intended for Americans who did not use 1084 monitors



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Dower

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may need multiple units - one (or more) for incoming video, one for outgoing video. Once again, the expense will largely be dictated by your willingness to pay and your concern for quality. Mr Sorenson recommends serious PAI Toaster users consider the Passport 4000, a high quality transcoder from Prime Image. Prime Image can be contacted on: + 1 408-867-6519

· A Y/C Plus or similar board (optional). The Toaster's inputs and outputs are composite video, which is not nearly the best quality in the world. The Toaster can be upgraded to support superior S-Video with the Y/C Plus card. Because each additional component in a video chain degrades the signal, and transcoders are so important. that signal quality will get worse even faster Using Y/C Plus and S-Video sources means



F B W INDO REDO Q

▲ ToasterPaint in action

ter, become involved in a local film or video community - like many professional and cre



but had multisyncs instead (which do not provide the required signal) but they will serve just as well overseas, and will certainly be much cheaper to have shipped. A regular PAL 1084 will not suffice, because the timing signal would be wrong. Of course, if you go with the NTSC 1084, you will need to power it through the power converter as

. A PAL/NTSC transcoding device loptional, but highly recommended). This will probably be the single greatest expense you'll have to make that a North American doesn't. The transcoder will have to convert all of your incoming PAL signals (from video cameras, source tape, etc.) into NTSC, and then back into PAL for recording. Depending on what model you choose to invest in, you

there's more room to give in the video signal. Unfortunately, this is an additional expense, and S-Video transcoders are similarly likely to be more expensive, but if quali-

Alternatively...

You can still do some work to tape without fewer. The alternative would be to purchase an NTSC VCR from overseas, plug it into the deck. That doesn't solve the problem of inputs - you can always use the computer graphic outputs, of course, but any camera or tape inputs still need to be converted to NTSC by a transcoder. But by recording to an NTSC VCR, you can

use that for viewing on a suitable monitor, or perhaps even easier, play it on one of the growing number of consumer PAL VCBs which sup-Professionals tend to upgrade their video rapid rate. If you're really interested in the field to work with, it would be worth your while to enquire of several video broadcast facilities how they dispose of their

disused gear. Even bet-

ative endeavors, one video person tends to and by making a few contacts in key places you might be let in on an equipment firesale before anyone else. A good many Toaster studios have been built from castoff pieces of larger video firms.

Getting into video is a serious investment outside its native land does create some additional headaches and expense. There's there's simply no substitute. You can buy standalone switchers and effects machines of the Toaster with software like Scala, Monument Designer, or X-DVE

All of these programs are very capable (and each does a few tasks better than the Toaster would), but none of them offers the unique combination of power at your fingertips as the Video Toaster. Headaches and all, if you're a frustrated genius with a story you're just dying to tell on the small screen, investigating the Video Toaster would be a smart move

Jason Compton



To find out more contact NewTek on the numbers below or visit their web site at www.newtek.com Tel: + 1 210 370 8000 (from US) 800 862 7837 Fax: +1 210 370 8002 email: customer service@newtek.com



A The video switcher control panel - check out those crary effects.

Audi o Vlagic

You'll be amazed at what your Amiga can do when it comes to sound. It's true! There's virtually no computer-controlled audio process that's beyond your Amiga, and it needn't cost the Earth. Allow Tony Horgan and Dhomas Trenn to

convince you...

hink of Amiga audio and what springs to midd An underpowered a spire of the Shit sound right? A Techno Tragedy' case that lost out to the Arat ST because it didn't have MRID ports built in A count of date? A place compand to 'professional' PC and Mac audio systems? If so, you need a serious update on the situation! Though have changed a lot in recent years and 1996 has seen before. See the panel for a selection of amazing audio feats that can be proformed.

Of course you can still do everything you could before, including a limitess array of slightly more obscure and specialised applications isound effects for theatrical productions, on the fly sampling for DJs, standalone resittime effects processing diffing suite for outboard samplers, multi-media CD audio production...)
Even if you don't have a Zorro equipped

Amiga yet, in the very near future

voril be able to do all of this from a bog stander A/2001 And a fast SCSI controller, preferably via an accelerator, plus the forthcoming Melody/200 sound card livinish plugs into the clock connector on the motherboard and you're away Better asili, go for Zoro and the all the worders of will be yours. Our the following pages and will be yours. Our the following pages and will be yours.

you'll find a round-up of all the most exciting new audio developments alonside a few bits and pieces that have been lurking in the shadows for a while. To get you up to speed, let's take a look at what's been happening over the last couple of

Overcoming old limits

Four mone (or two steree) channels of 8-bit audio can produce good results, but these days those specifications are laughably low. They are imposed by the Amiga's standard sound chip known as Paula. One way or another, the Amiga's inventive community of hardware and software developers have banished these limits to the pages of history. Thanks to some clever trickery, you can get 14-bit output from Paula with most audio software, while 16-bit audio is available via a range of sound card wagnarious.

The four channel limit is now obsolete dute to a new sporch to replaying audio. These days any decent bit of laudio shift-ware either has first disport for source either has first disport for source and in ruses. All fluido Flatroviere interfaces which is a but of solivorer start redirects be program's sound to your chose sound caud. Of law CostMED. SoundStudio as an example, include a similar of law of the program's sound to your chose sound caud. Of law of the replaying control samples, it does all of the sound processing titled, which includes the mind of a thorestably unfinited number of tracks, and finally passes a single stores.

audio stream to the sound card or the Amiga's internal Paula sound chip.

Most Amiga sound cards are guite simple For example, Tocasta does nothing more than play and record 16-bit stereo or mone audio at one of a number of rates up to and above that of CD audio. Some have their own unique features, such as Defina which can add echo and distortion effects which can add echo and distortion effects because the example of the control of because the example of the control of plays the play of the control of plays the plays the control of plays the plays the control of plays the plays the



quite scarce. An AHI driver is available for most sound cards, which is enough to make them available as a 16-bit input and One of the most powerful upshots of this new method of replaying audio is that the final digital audio stream can be directed to a hard drive as well as a sound card. That means you can record direct to a hard tridges), negating the need for a DAT or any can then write an audio CD from the resulting hard drive file. This kind of hard drive recording is available via AHI. OctaMED SoundStudio and a few other SoundStudio

Introducing CD-R

ing up your mistakes along the way. exciting advances con cerns CD-R: recordable Multitasking master years ago Never forget that your Amiga is an thought expert when it of setcomes to smooth multitasking. For example, with a decent CPU (preferably an '060) you can one program blank discs. Not only devices while was at a gram acts as a real effects proces

SCSI hard drive capacity

in a few ways: most obviously and matically, and so has the cost of the discs them-

available for

between £1 order). In addition, there's no need to have a second SCSI hard drive onto which to build your CD image before burning it to the actual CD. The software has advanced original files.

At the same time, hard drive recording and editing software has come on tremen-Sound Probe on this month's cover disks and CD and you'll be very pleasantly sursave out an entire CD's worth of audio as an AIFF file which includes embedded track markers. You could, for example, record a 70 minute continuous DJ mix to hard drive with Samplitude, add track markers, save it and copy it direct to an audio CD, even fixTry this for size

Thanks to recent developments you can now do all of the following and more: . Compose, record and master a complete

record to CD with no outboard mixers, effects units, keyboards or recorders at all · Digitally edit a completly seamless CD album

and burn it in one go complete with track

· Use you Amiga as a MIDI sequencer and 16bit hard disk recorder or realtime effects unit at the same time

· Emulate thousands of pounds worth of classic discontinued analogue synths and drum

· Process any sound with just about any audio special effect ever devised, including all the latest fads and favourites

· Convert and use virtually every type of sound file in existence and copy sounds direct from normal audio CDs

> effects to any one or all of your external MIDI instruments. Alternatively you could set yourself up with a MIDI sequencer controlling your MIDI instruments, pass them and have Samplitude record it all to hard drive in CD quality stereo.

If you have a sound card, you actually have two independant audio outputs (the sound card and Paula), each of which can be controlled by different programs at the same time. The use of your internal Paula sound chip puts virtually no strain on the computer's CPU (so long as you don't use 'mixing' techniques), so using it in conjunction with a sound card won't slow things down. Put your mind to it, experiment and you'll come up with schemes and ideas you never thought possible.

Save money

Your Amiga can also save you a lot of cash. For instance, classic analogue synths can fetch silly prices on the second hand market, and often won't integrate smoothly into your MIDI setup. With 'softsynths' like the forthcoming 303Tracker, you can have a virtual analogue synth on your Amiga that outputs totally clean samples ready for you to use in your prefered sequencer or tracker.

Basically, when it comes to audio, if there's something you've seen done on any other computer, it's almost certain you can do it with your Amiga, normally for a frac-

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our cho dard the

tereo or rates up Delfina effects he addi-

written

Samplers & Sequencers

The core of your music making set-up is going to be either a sampler and a tracker or a MIDI sequencer. Here are some of the best...

hen it comes to making music from scratch you've got two choices. You can either use a sample-based tracker-type program in conjunction with a sample editor or take the MIDI sequencing route. Both

have their advantages and limitations. With MIDI of course you'll need to splash out on some acternal MIDI sound modules and congrated the MIDI sound modules and congrad your system as far as your budget will take you but into the chape they do not seen the congrad your system as far as your budget will take you but into the chape they do not have the congradient to the subject of MIDI and outboard MIDI equipment as that's really a whole separate issue in itself and it would be impossible to cover

OctaMED SoundStudio

| 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100

even a small percentage of the available MID instruments you could use. However, take a look at the MIDI sequences parel for a list of what's evaluable on the software frost. Generally MIDI and Arriga sampling don't go together both and Arriga sampling don't go together both and reason (even a list of the sample of the sample sam

OctaMED transcended the tracker genre from which it emerged many moons ago. Now it's out there in a league of its own, although it's been in a state of hibernation for a couple of years now. It does have a few rivals snapping at its heels, but still its direct support for most common Zorro sound cards and its multi-track mixing abilities make it the first choice for anyone who wants to stick with tracker-style editing but wants more power, flexibility and the chance to be rid of 8-bit samples. Unfortunately its disappointing sales have lead its original development team to move on to the PC, but in the true spririt of the Amiga, it has been picked up by a new developer that is currently working on a version 2 release. This will include direct support for the Melody and Melody 1200 sound cards, which also happen to be developed by the same people. Version 1 is available for next to nothing on CD from Wierd Science and was included on the March 97 issue of CU Amiga.

treat 8-bit Amiga samples with certain Linds MIDI sequencers were developed well before advances were made in 16-bit Amiga audio, so there's nothing much going on with that combination either. There are exceptions to the rule however, such as OctaMED SoundStudio which incorporates MIDI sequencing seen lessly into its sample tracking.

Other trackers of note include variants on the original Sound'racker, such a not the original Sound'racker. South a profit process of the original South of the original south of the original south of the original south original sou

put featuring realtime effects processing.

Sequencers

MIDI sequencers haven't exactly come on in leaps and bounds in recent years, although that doesn't really matter all that much. At heart a MIDI sequencer is a very simple thing. It 'listens' to the MIDI interface plugged into your serial port and

SoundFX

SoundFX is probably the best shareware digital audio processor for the Amiga. It includes over 50 effects (everything from echo to surround

sound encoding). All functions have extensive parameter and modulation options and the capability to save/load effect configurations.

An extensive Affexx command set gives you almost complete control over this application, with the ability to automate functions or even create custome effects. Support is included for all common audio file formats and many unusual ones, too. Audio output is possible through the Amiga's built-in audio hardware (with 8 and 14 bit implementations) or using the Affl system.

Amiga, Its interface is a bit different, but once you get used to it, it presents many creative possibilities that are unavailable with similar programs. Although B&P Pro mentation leaves it open for further expansion. With it now being freely distributable cian should have. Related: websites (Modern Plumbing and Richard Hagen's

B&P), an email List and the Triple Play Plus

(48 channel MIDI interface) Music-X

Before B&P Pro came along, Music-X was addition of an ARexx module opened up lots of new possibilities for creative MIDI message processing. Music-X provides for additional MIDI channels (>16) though cus Studio 16

Studio 16 was the first serious audio hard disk recording system to appear for the Amiga. It features a powerful time line editor which not only triggers audio samples but can also control external programs through ARexx, making it a full multimedia system. Its frame accurate timing and ability to sync to SMPTE time code make it perfect for video/film projects. It is capable of playing up to 8 tracks (AD516) or 4 tracks (AD1012) at 44.1 kHz, with simultaneous record and playback. The software has not been officially updated since 1994. However, due to the recent surfacing of some long lost developer documentation, the program has been getting some new attention and the hope of some new enhanced modules in the future. Related: QMaster (cuelist file manager), Studio16add (developer documentation and add-on tools). Studio16-Dev (v2 05 developer mdocumentation), SuperModel (GUI patch) and the Studio 16 support website (FAO, email list, files).

MusicXMagic and MusicXRexMacs.

Camouflage

Camouflage is a promising looking alternative for MIDI sequencing, which seems to be on the right track. But, it appears that unreachable web and email addresses, that this project may have been abandoned.

Dominator

The author of Dominator, Luc De pauw, has moved on from the Amiga, but will be releasing one final update that adds AHI support and event editing. It will appear on his website in early July, and will also include a free key-file. He is looking for someone to take over the development, so if you are interested get in touch with him.

nothing to lose by taking a look. Bars & Pipes Pro

powerful MIDI sequencer available for the

record notes, volumes and other perfor-

mance data transmitted by your keyboard

data around the timeline, add new tracks

over the top, and then get the sequencer to

instruments. There, that wasn't difficult was

(see Dominator and Camouflage) but aside

it? There have been a few developments

from that you're looking at software that

doing the rounds a while ago has since

stopped in its tracks some years ago. One

reappeared for free download via the web.

Sequencer One is now available for free by

ProStation

promises to usher in a new era for digital audio processing on the Amiga. Directed at high-end Amiga audio professionals, this digital recording/processing system will combine all the best features of existing Amiga software (multi-track graphic time-line editing, graphic mixing, high quality effects processing, ARexx, B&P synchronization, greater than CD quality) with that of more advanced Mac/PC audio applications. This program is sure to create some excitement in the Amiga music community and we'll be first with the news, so watch here for a full preview of this great new Amiga offering.

Where to get them

Bars & Pipes Professional - Blue Ribbon Soundworks - \$ Free http: members.theglobe.com/geoarn/ Camouflage - I.S.M. - DM 139 aminet: mus/midi/camouflage149E lha Dominator - Luc De pauw - \$ FreeWare http://www.ping.be/raversgarden/ aminet: mus/midi/dominatorV1 51.lha Music-X - Hollyware/Microlllusions - S Music-X Macros - Gareth R. Craft - \$ Freeware

http://www.midicraft.demon.co.uk/~craftbro

email: craftbro@midicraft.demon.co.uk aminet: mus/midi/Music-X Macros.lha ProStation - AudioLabs - S TBA http://www.audiolabs.it email: info@audiolabs.it SoundFX - Stefan Kost - £20 US\$30 leipzig.de/~kost/SoundFX.html email: kost@imn.htwk-leipzig.de Studio 16 - SunRize Industries - \$ Discontinued Studio16add - Kenneth Nilsen - \$ FreeWare email: kenny@banett.no SoundStudio - Weird Science Tel: 0116 246 3800 Software Technology Ltd http://www.software-technology.com

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Tools & Other

You won't get by with just one major music application. Sometimes you just have to reach into your tool bag...

o one piece of software is always want it to. Sometimes you might find you've got an load directly into your prefered workstation application. Whatever it is you do, it's likely that at least at one time or another you'll be glad you got some of this stuff at your dis-

Sound file convertors

AmiSOX is the "Swiss Army Knife" of sound file conversion. It supports most of the common formats as well as some more unusual ones. If you have a sound file to convert this is the first program to look at. It can also perform some simple digital processing functions.

If you want to convert audio files for writing to CD or for use on the Elyer, Audio Thunder is the answer. In addition to conversion, it also provides basic cut/ paste/ effect and auditioning functions. A time audio clips into a single clip, is also included.

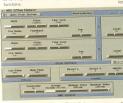
MPEG audio is becoming a very popular sion: though unfortunately, it is mostly process can take a long time, so a fast machine is recommended. However, either mp3enc or the newer 8hz-mp3 should do the job nicely regardless of your system speed. No known Amiga applications will load RealAudio sound files, but most can load something in raw format. The tool to make this conversion is RA.

Sample players

At the top of the list is Play16, providing support for most popular sound formats up to 16 bit at 56 kHz in stereo. It supports ware (Paula), AHI and the MaestroPro and Prelude sound cards. For low memory conditions or large sound files, Play16 can even perform real-time play from hard disk. It also works well in conjunction with RA to play RealAudio files.

If you want to play the popular MPEG-3 song files that proliferate the internet, AmigaAMP (formerly MPEGAHI) is the program to use. If you do not like the Amiga

gadgets, it will load WinAMP compatible "skins" for a nice, but slow loading, 256 color interface. AmigaAMP is capable of doing real-time decoding on an 060 at 50 MHz or at half the sampling rate on an 040 at 40 MHz. PPC users will enjoy additional



The problem with MIDI song files is that the only people who can listen to them is other MIDI musicians. Even those people will not hear the song properly if they do not own similar sound modules. GMPlay is a virtual GM module that substitutes MIDI channel notes for hard disk sample triggering. The distribution includes many GM standard sounds, but if they are not to your liking, there are several alternative archives available. You can also use your own custom sounds, so non-GM compositions can also be played or arranged.

MIDI Tools

With many MIDI setups, it becomes more and more difficult to organize the evergrowing accumulation of MIDI data files. One possible solution is a MIDI librarian like Patchmeister. Designed to be used as a stand-alone program or a B&P Pro add-on, it covers many of the basic needs of a librarian. However, with no available documentation and some dead-end limitations it is not the final solution. But, being one of the

Another option is an upcoming program called MSE-Snapshot. With it, you simply define a project (song) and assign MIDI

devices to it. Then, with a click of a buttor MSE-Snapshot will retrieve all MIDI data from the associated devices. To recreate the song setup, select an existing project and With so many different user inter

faces on musical devices it can become very confusing to edit sounds. What would help is a comsolution is the "Universal Patch Editor" (UPE); a great idea, but the reality is that with so many differe and changing MIDI implementation the UPE is a myth. A more realistic solution is MIDI

claim to be a UPE, but does strive to solve many of the problems. It comes with everything you need to create your own fully customized MIDI control systems. To create device specific modules, MSE use special definition language that even nonprogrammers should find easy to use. With it, you can customize almost everything, including: screens, windows, fonts, colon graphics and gadgets. MSE can control all

almost any MIDI control applications, inclu

ing: patch editing, mixing, lighting and

laser displays. CD-R software



There are a number of capable CD writing packages available these days. Take a look is on this month's cover CD for a very capable version of MakeCD. MasterISO and BurnIt at also names to look out for.

r Hardware

Updating your audio hardware is now a realistic and practical option thanks to widespread software support for the growing range of sound cards.

direct software support. you can make use of a sound card expansion with your favourite audio software. The days of sound cards being tied to their own software are gone, leaving you free to mix and match pretty much as you see fit. Here's a round-up of the major

Tocatta If you can find one, a Toccata card will give you a good quality 16-bit input and output that's well served by AHI. Samplitude and OctaMED SoundStudio. Availability of these cards seems to have dried up recently so your best bet is probably to keep an hand ads. It was originally on sale for £299 which was a lot of money to ask for a basic 16-bit DA-AD card, but if you can get a good price you'll not

Maestro Pro

The Maestro Pro is a fully digital audio card. It includes one digital input (selectable: optical or coaxial) and one digital output (optical). Do not let the coaxial input fool you, work with analog device outputs (synth, cassette player, etc.). It is capable of operating

Why would you want one? One of the problems with sampler cards is that they are subjected to all kinds of computer interference, which can add noise to your recordings. A better alternative is to use an external digital recorder (such as DAT) to record analog signals and then transfer Or you could directly transfer sounds/songs that has a digital output without any loss of

quality. It can also be used to remove SCMS copy protection from DAT recordings. As an

There are a few variants of the Melody sound card due for release later this year. The most interesting is the attached to the clock know you had one of those did you?). Details are sketchy at the moment but it could be

A1200 into a Zorro tower. AD1012/AD516

16 bit A/D converters, 64 times oversampling and preset antialiasing filters. It is capable of stereo at rates up to 48 kHz. Its predecessor, the AD1012, has a single 12 bit linear A/D converter and is capable of record/playback in mono at rates up to 48

MIDI interfaces

There are dozens of MIDI interfaces available for the Amiga. They can be easily found, new and used. In most cases, they provide one MIDI IN, one THRU and one OUT. It is important to note that most devices that have additional OUT connectors do not allow for more MIDI channels. One exception is the Triple Play Plus, which was designed specifically for B&P Pro. This device provides three independent OUTs, allowing an additional 48 channels of MIDI transmission. Most interfaces connect to the serial port

and are compatible with the majority of MIDI applications without a custom driver.

Other options

Most of the other options for non-Zorro Amigas are limited in various ways but recent software developments have made them more practical. For example, Aura and Clarity 16 both offer A1200 and all other Amiga users respectively the chance to get into 16-bit sampling - Aura is actually 12-bit. Sound Probe has drivers to support both of

often interesting effects). Both cards are equipped with an LTC SMPTE time code reader and an ADSP2105 sound coprocessor rated at 10 MIPS. The AD516 was this never made it past the prototype stage. An AHI driver does not exist for either of

Delfina DSP

The Delfina DSP sound card is interesting brain. Unlike most other cards which simple input and output 16-bit sound, Delfina can its own effects control software which doubles up as a sampler, although sadly third party support for its DSP features has so far not materialised.

Where to get them AD1012/AD516 - SunRize Industries - S Discontinued

AmigaAMP - Thomas Wenzel - \$ FreeWare http://amigaamp.amiga-software.com/

email: wenzel@unixserv.rz.fh-hannover de aminet: mus/play/AmigaAMPIha

AmiSox - David Champion - \$ FreeWare email: dqc3@midway.uchicago.edu

aminet: mus/edit/AmiSOX33.lha Triple Play Plus (clone) - OCTAVE 2

media - US\$166

www.octave2.ch/amiga/amiga e.htm

email: info@octave2.ch tel: 41-32 325 33 71

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Soft Synths &

Stuff

Why add synths outside your Amiga when you can have a load of them gurgling away on the inside?

WaveBeast

WaveBeast emulates a two oscillator anaform selection, filters, envelopes, modulation, and basic effects. It can be programmed using its 64 step sequencer, which provides control of tempo, transposi tion, slide and portamento. Sound generaculation process is very fast. Almost 300 patches are included as examples.

303Tracker

Son of 303Emu, 303Tracker aims to bring us the incredibly realistic TB303 emulation of its forerunner in a new improved, easy to use format. The rather hacky initial incarnation allowed



ples that ly like the the 303 acid you wanted to make you had to

tion requires an intensive calculation better. The length of created sounds is dependent on the amount of memory

FMsynth

FMsynth emulates a six operator frequency key scaling, phase, level, detune, feedback, transposition and more. Sounds are created in 8 hit and saved as 8SVX format. The caluse an awkward scripting system. 303Tracker will offer a familiar tracker-style front end allowing notes, filter settings and slides to be programmed with ease, then SoundStudio is also promised. We'll let you know as soon as it's ready!

Speech

Amiga's built-in speech system (narrateen more variable parameters to that of,

> the computer speech. It also adds tion. There is also a replacement translator.library which adds the capability of multi-lingual speech. It includes a system of pronunciation rules, called accents which extend the speech beyond the American English bias of the original. Many accent files are availeven Klingon. This new translator is backward compatible with the

Wish you could capture the

With so many different sound cards available, the Amiga needed some kind of standard to access them consistently. So, Martin Blom created the Audio Hardware Interface (AHI). AHI makes it easy for audio application developers to add support for most sound hardware without having to create custom drivers for each

It allows programs to share audio resources so that several programs can process sound simultaneously. AHI drivers already exist for the Amiga's internal audio hardware, as well as most popular sound cards. Most major audio applications, and many games, include support for AHI.

> Amiga speech as a sound file? There is a rare and little known utility, called Say To Raw that will let you do just that. It re-route output from the Say command to a raw audio file, allowing you to use speech in whatever situation you choose.



Availability

AHI - Martin Blom - \$ FreeWare/Donation http://www.lysator.liu.se/~lcs/ahi.html

FMsynth - Christian Stiens - US\$20

Say To Raw - Renê Eberhard - \$ FreeWare

SpeechToy - Chris Demiris - \$ FreeWare

aminet: util/wb/speechtoy2.lha WaveBeast - Marco Thrush/Jan Krutisch

hamburg.de/~s1469005/amiga/wavebeast.html



fans of Reland's long-since discontinued analogue bassline synth

EZPC spec boosted

30-bit A4 flatbed scanner & 64MB

now included as standard

The EZPC is now the cheapest way to get a highly spec'd Amiga 1200 - over 40% cheaper than a Zorro3 solution - and you get a free PC thrown in! etech has enhanced the specification of the EZPC-Tower

als now accepted as standard accessories by PC users, but herto very expensive - if available at all - in their dedicated

techs new EZPC-Tower configuration now includes: EZ-Tower-Plus with k/b, k/b adapter & 250W PSU 30-bit, single-pass A4 flatbed scanner & OCR s/w 2 additional high speed serial and one bidirectional

32-speed CDROM (with the option to upgrade to a

24-bit frame grabber (composite or SVHS source), in-

3.2GB of additional hard disk space 16-bit, 32 voice wavetable sound card with midi interface

Amiga-accessible high density floppy drive

High resolution graphics card with full screen MPEG

A1200 and PC ethernet connectivity for use in a network environment, if appropriate.

2 x buffered IDE channels supporting 4 devices in total

and _ 64MB of memory on the PC side

EZPC-Tower	NearestAmiga	Amiga
hardware item	equivalent	price
Z-Tower-Plus	Tower system + k/b	£150
14 flatbed scanner	Eyetech/UMAX pkg	£180
x serial + 1 x parallel	PortPlus Z3	£70
12-speed CDROM	32xmech + EZIDE	£60
Expansion slots	Micronik Z3+video	£360
High res graphics card	Picasso IV	£250
motion frame grabber	ProGrab PCMCIA	£130
IV tuner w/ teletext	Paloma IV	£100
6-bit sound card	Prelude	£170
12GB hard drive	3.2GB TowerDrive	£140
ligh density floppy	Micronik	£55
device buffered IDE iff	EZCD-Mk4	£40
Ethernet networking	Eyetech PCMCIA	£90
MPEG full screen p/back	n/a	
ZPC-Tower - £999.95	Amiga equivalent -	£1795

though it is impossible to give a 100% like-for-like comserison - largely due to lack of choice of equivalent Amiga ands - the table above shows that implementing the nearest repansion route costs nearly 80% more. And of course you gain a fully functional, high performance PC system to for your less serious computing activities - such as games.

these devices are available to the Amiga - either directly the Siamese RTG2.5 system - or via direct access of their

ha well as 'off-the-shelf' EZPC systems we can also build stems to order if you require special functionality - such non-linear editing of video tapes. Just ring and ask!

EZVGA PC monitor adapters now available in 6 models to suit all Amigas & pockets

Internal AA chipset and external universal models available with or without flickerfixer. Why so many models? How do you choose which one is best for you?

Choice 1: Internal or External? If you have an Amiga with an AA (AGA) chipset then you have the option to use an internal

EZVGA adapter. This is an adapter board that plugs over one of the Amiga chips and joins to a second board which is plugged into the 23-pin video port. The main benefit of this adapter is that it takes the digital signals direct from the 'Lisa' chip (rather than by using the analogue output from the external 23-pin connector). This makes the design less complex electronically and results in a lower cost for the finished product. On the other hand fitting (any) internal unit does require a level of manual dexterity and electrical common sense which is not required by the 'plug and play' design of external units. You should also note that the fitting of an internal unit requires the metal shield of the A1200 to be completely removed, itself a far from trivial operation unless you have already done so as part of

Choice 2: Scandoubler or flickerfixer?

A scandoubler simply allows normal PAL (or NTSC) non-interfaced 15KHz (TV displayable



these modes automatically - as most games do - then a scandoubler is probably all you need. (This or the Siamese system - for most of your Amiga work, but need to be able to display native 15KHz to display interlaced 15KHz screens - which are normally unusable on a 15KHz monitor or TV. This gives you twice the vertical resolution and a rock-steady picture for serious applications as well as games. The EZVGA-MK

scandoubler can be upgraded to the EZVGA-Plus flickerfixer by adding extra memory chips.

Choice 3: EZVGA-SE or EZVGA-Mk2 ?

The 'heart' of any Amiga computer - the thing that makes it tick - is a 28MHz oscillator. This is used to govern all aspects of the Amigas operation - including its video output. (In fact the PAL and NTSC versions quencies to meet the correct TV standards). Lower cost external VGA adapters - like the EZVGA-SE and circuitry. As well as precluding the use of a genlock itself this method can introduce some incompatibilities accelerators. It also needs to be manufactured with

		EZVGA External	EZVGA Mk2/Plus
Pass-through of >16KHz modes	Yes	Yes	Yes
Europe/US Amiga compatible	Yes	Europe	Yes
Upgradable to flickerfixer	No	No	Yes
'Plug & Play' installation	No.	Yes	Yes
Uses Amiga oscillator (for compatibility)	Yes	No	Yes
Scandoubler - code: ADPT-VGA- - price:	-INT £59.95	-SDSE £59.95	-SDBL2 £74.95
Flickerfixer - code: ADPT-VGA- - price:	-IFF £89.95	-SDSEF £99.95	-SDFF £119.95

not universally interchangeable. The EZVGA-Mk2 and EZVGA-Plus on the other hand use some advanced electronics to derive an oscillator signal from the Amigas video output. This means that both these units will work with all Amigas and wil not interfere with the operation of any other peripherals.

CDPlus-SE comes out tops in latest review

"Evetech have come up with a real winner with this new CDROM drive" - Ben Vost, AF

Eyetech's all-new CDPlus-SE has come out top in a comparative review in the July 1998 issue of Amiga Format, winning a 94% rating and an Amiga Format Gold Award.

The unit is available with either 20- or 32- speed, whisper-quiet CDROM mechanisms and comes complete with the Eyetech EZCD-SE 4-device buffered interface, cables and CDROM detailed instructions for fitting the EZCD interface with different internal hard drive configurat

CDPlus-SE 20-speed	£99.95
CDPlus-SE 32-speed	£119.9.
CDPlus-SE audio mixer	£19.93
CDPlus MT/DT u/grade	+£20
CDPlus-SE Full	
EZ-Tower upgrade	+£90

The CDPlus-SE is also available with an optional audio mixer module for jus £19.95 extra. This module fits inside the CDPlus-SE case and mixes the audio output from the Amiga with that from the CDROM mechanism at the correct levels The composite audio is available on gold-plated phono sockets on the back pane

In addition the same mechanism, cables, interface and software are also available

as special bundles with the Evetech MiniTower, Desktop and full EZ-Tower cases

Siamese 2.1 RTG Software for just £24.95

Do you like the sound of the EZPC-Tower System - but would like to try out the Siamese RTG system first? Well for just Siamese RTG 2.1 s/w

Fully functional £24.95 you can now experience the full functionality of the Siamese software - supplied on CDROM - for yourself. version of the Siamese software with full credit (less carriage) within 30 days of purchase. The offer also applies if you wish

RTG 2.5 & PC/Am ethernet screens on the PC's monitor. V2.1 is a bit too slow for graphics - that needs the 100x speed-up of the RTG 2.5 ethernet system. 2.1 s/w within 30 days

en wav

of stan-, Martin pplicanost create

exist for . as games,

a raw



DF0: face plate, cable Custom backpanel w/SCSI,audio KO's A1200 power and LED adapters

CE-approved metal PC case

PC board/Siamese compatibility

EZ-Key adapter & Win95 k/b

Cost with options as specified

Evetech installation option

No of bays/PSU capacity

Accessible PCMCIA slot Installation instructions Fuji DS-7 Digital Camera with mains adapter/nicad recharger y x 460 x 260 ft pixel resolution - Ideal for Web graphics - with focus from 50m to infinity, even up to 2000 highlow rise, pixtures in Jepp Somation or exchangeable 2585 SirestModa card, even up to 2000 highlow rise, pixtures in Jepp Somation or exchangeable 2585 SirestModa card, even up to 250 July 250 Last few at just £299.95 w/mains adapter & CamControl s/w

Award-winning UMAX SCSI flatbed scanner with Amiga PhotoScope software - just £179.95 whilst stocks last:

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should certainly be considering the unique Eyetech FZ-Tower system:

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easiest solutions to building your own tower." Amiga Format "The Evetech tower offers

clever solutions with a Velcro easyfit mentality" Cu Amiga Backplate DIY* Full EZ-Tower Plus EZ-Tower EZ-Tower

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Yes

Yes

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n/a

Option

Amiga 1200 Magic Packs

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20, Zips agn.

needed!

believable vith a PPC vith a PP

This month sees

two major releases, Genetic Species. How long is it since two games of this quality appeared during the same

Genetic **Species**



■ Price: £29.99 ■ Developers: Vulcan Software/ Marble Eyes ■ Available from: Weird Science © +44 (0)116 2463800

Swap bodies like there's no tommorrow and kill stuff... what more could you want?

again. Every time I hear a clank - and that's all the time - I grip the rifle tighter. If one of those scouts is around the corner, I don't know what I'll do was able to lob

and take off back to relative safety. I've first aid fast. didates left for a takeover - all those petty and I had to waste them. I sure wish I still had the ammo I blew on them,

convenient body swap.

But as long as I... what was that? Whirling around a second too late, I catch sight of the security officer I forgot was lurking in that down the screen, all I can think of is - damn, it's been a long time since I was able to save



Comparing Genetic Species to Doom, Quake, or your garden-variety clone thereof does it a disservice. Rather than try to reinvent the "running around shooting things" wheel, the Marble Eyes team have sought to use the concept of a first-person, realistically rendered terrain engine as the core of a Game of investigation, strategy, suspense, and shooting things.

That's not to say that you can't have a



A Look! The Earth is out!

Be afraid... Since "bright future" science fiction settings don't make for very good shooting action. this Game, like so many others, is set in a "dark future." In the early 2200s, humanity is select megacorporations. Nearly everyone except for a select few who have evaded the the corporations. The CFA has been developed take advantage of those mind-control control of corporate employees. Some very strange things have been happening on a

ant? weapons

settings

has decided to activate one of the

and try to gather clues as to what might be nate the intruder (you). But, through cunning and superior firepower, you have to fight count, gathering keys, clues, and even more

Saving humanity the hard way

There's no way to dither around this issue the 3D engine is just awesome. Once you

seen done nearly as well in any Game of this type, period. You very quickly get the ning through the subterranean corridors of some you so fast you hardly notice "glide" in a manner vaguely crisp and, well, satisfying die, not how they walk. A do not always fire straight the screen (because most human beings have trouble carrying guns

squarely in the middle of their bodies), but a pinpoint gun sight helps you call your shot. Genetic Species is full of unique little wrinkles. The artists really avoided "blocky computer graphics syndrome" in spades there are a few things you can get "too close corpses from mishap experiments, but it's

far better than most Games, where merely

approaching a wall turns it into a big visual great effect - there will be times when you wonder where all those guards could have much earlier. Doors open and close around you - somewhere in the distance, but still audible - and will keep you guessing as to who might be coming, and when. And then





The CFA comes in



there's the "Portable Probe Device", or "Paradroid Meets Quake."

starters, you can launch it (presumably out of the head of the creature you're currently ic), and will travel for a few seconds or until

> any enemy you meet can be ble to takeover than others, and stunning them first weapon, or sometimes you get lucky by whacking them When you successfully take

over a creature, the one you had been inhabiting dies sometimes, it seemed, tak-



A I want a bigger our. I wanna blow things up!

Tools of the trade

All good things must come to an end, and here are the tools Genetic Species gives you to get them there faster. A game like this needs a nice range of decent weaponry, and genetic Species scores a definite A+ in that area. There are weapons by the bucketload, and they're complete with some spectacular lighting effects that give a real sense of just how powerful your latest discovery is. Get hacking, shooting and zapping!



Silenced Pistol >















Mine













ammo into the abyss as well, which is rather unfortunate, and difficult to justify from a design point of view. But the takeovers are sometimes necessary, or at least extremely helpful - certain types of characters (particularly engineers and security officers) have



▲ Rocket launchers are not always good in close quarters.

access to rooms others simply cannot reach,

sometimes in your best interest not to simply blow away everyone you meet.

Genetic Species is probably unlike you've ever experienced before in a 3D shooter. This is nothing like a level of Alien Breed 3D or Doom or Quake - kill a dozen enemies, find a key, kill another dozen enemies, search for secret rooms, exit the level, do it all over again in another setting. You will pick up weapons you had to drop in order to carry other needed items, go back to make sure there wasn't a hidden switch you missed, take countless elevators up and down, all while minding a rather frugal ammo supply and, of course, your sanity. Add to that the very refreshing rudimentary when they're dying, call for help, and even try to track you down if you get away from

To get past all this madness, the key you need might be two or three full one destination. Fortunately, kle, you always have access to a generally complete



A As a Face Hugger, you can spit streams of acid for yards.

floorplan in every level, which you can over lay on the screen at any time. Certain things like disused corridors or secret hallways and chambers don't appear on the map, though so it is by no means exhaustive. The map is available even when you first enter a level so you can check out the entire floorplan

▼ The trippy probe-cam.



Know your enemies

Genetic Species boasts one of the most expansive and varied collection of opponents ever assembled for your







butterfly, sting like a bee



Stormtrooper: Action Man











Battle Cyborg: Almost



before you make a single step. It's a little disappointing that the secrets you do manage to find still don't appear on the map.

Genetic Species makes very good use of a range of Amiga hardware. There is a small ability to use most graphics cards, and sound is provided through AHI. On a high end machine, 320x250 (the top resolution) would expect given the fact that is considered "low res" these days, even with double you're without RTG capabilities, the Game moves along at a very good clip for AGA users. And the sound is absolutely fantastic the CD tracks of mood music are very appropriate, the constant spooky clanks and grinds keep you on edge, and the sound effects get gradually more sinister and "icky" as the Game wears on.

W Ben't try this at home kide!

or vards.

e map is

a level -

orplan



A Work's been tough since the new dress code **Evolution of the species**

Nobody's perfect, Genetic Species has some design flaws - some niggling, some notable. I had a serious problem with the Game's saved Game and options screen abili ties. You can only save your

up the menu is all that was required, but they really missed this one Finally, I have a problem with the Bioshifter/probe/taking people over premise. If, as the Game alleges, we're taking over the bad guys, who presumably are friends with the other



A Be very, very

careful when

shooting feel

tanks

begin shooting? I would certainly understand if they saw or heard us shooting at people or

things, or saw us meddling with doors we shouldn't be near, but no despite taking over the body of an enemy commander we apparently still have a sign tatoged on our foreheads reading "I am an intruder." I really wanted to get into the storyvery glaring flaw. That, and I'm really ly on Alien.

The online documentation alludes to an upcoming level-building CD, but release date. Without that product a ing Quake to GS, the comparison will ultimately have to be made, and

scant point less than Quake. Quake proper is the less engaging Game, but by buying into it, you buy into literally hundreds of other Games. GS is a thrill ride and a half but when it's over, until that level creator comes out and people learn its tricks, it's over. Jason Compton

I Number of disks.....CDonly E RAM 2M5











Game when you discover the exceedingly rare "save Game powerup" - you can leave it there or lug it around, occupying one of your ready to use it, but once used, it's gone until wrong guy can suddenly make your mission much more difficult, maybe even impossible. frequent saves would certainly have been

So would an easily accessible options screen, to change screen size, brightness, or to reload a saved game. But to do these things, you have to locate a computer terminal. Sometimes, they're in great supply, other times you can literally be locked away from one and have to use a special keyboard combination to quit - there's nothing else to be done! Just hitting the escape key to pull



n't get their atten-

GENETIC SPECIES

Hard disk installable ...NA





Foundation



■ Price: £29.99 ■ Developer: Paul Burkey/Sadeness Software ■ Available from: Weird Science ♠ +44(0)116 246 3800 → www.sadeness.demon.co.uk

Second in this months pairing of big releases is the long awaited Foundation. A game of impressive depth... but is it engrossing enough to pull you in?

t last Paul Burkey's Magnum proof that the "bedroom programmer" is not an extinct

a couple of years ago as an ambitious pro-Foundation has grown into a game of awe-

enough, it has come out at last and thumbed the lad Burkey would never finish his epic. Foundation is a "God" game, a genre

genre has developed a lot since the early days, greater depth being the current trend. Foundation certainly follows this trend with an enormous range of features; the scope of game itself was developed, a vicious circle and took up dozens of CDs, if someone had-

Playing God

traditional isometric view to display the main of the screen. It is flanked by the main control panel and the overview map of the

the screen. You move about the playing area by dragging the mouse to the edge of the ing to a new location on the mini-map. When you start, all but the immediate area is in

lation of peasant workers, magicians, solhealthy supply of maidens to er... aid in lever-

finite, but can be replenished with a bit of magic when you discover the secret. The range of buildings is huge, and grows society up. Of course that is dependent on





them sufficiently comfortable that they can spend time in their workshops, tinkering with their tools. There are natural resources such as ore gold, coal and wood to manage, there's food to gather, and of course ene-

Game play is continuous and does not your orders. The men scuttle about the landscape and between the buildings, working and carrying, much as they do in The Settlers. However individuals and whole to occurv a different building with a simple click of the right mouse button. The building a neasant inhabits indicates the type of role

A big advantage of Foundation over all of

Architects anonymous H















Pump house: I thought my men came here to engage in the old five-knuckle shuffle until I destroyed it in a fit of spite and we

ng with



the resource management. As well as priori tising the production and transport of the output of resources from, each building can be adjusted to meet your needs. For example, if you are short of gold, you can set your mine to produce ore only and tell your refinery to stop producing steel. There is also a stock market where goods can be traded in times of lack or surplus. Sid Meier's masterpiece Colonization attempted a similar

by soldier and peasant alike by right clicking on your chosen target. As well as getting your soldiers to attack enemy buildings, you can even get your peasants to carry out sneak raids to steal the fruits of your opponent's labour, a computer foes. However the soldiers could

really do with some tuition on intercepting advancing enemies. You can set a few quards around your territory ready to intercept invading forces, but without a bit of steady guidance it can all go

nip off with your gold while your guards Lava world don't go for a A nice little bonus concept in Foundation beach.

is magic. You have wizards who use a resource called mana, which you develop by cemetary. They can use this mana to cast a improve and expand with development. buildings - who needs a JCB

when you've got a bloke in a combination of buildings, keeping a close eye on your watered and-happy, you your mission. You can quickly learn to order your mostly However it is easy to get the balance of buildings wrong, at

is frustratingly difficult to escape. Another thing to watch out for is when your people are getting bored and depressed; they start to tamper with the production levels in the buildings. In such instances I find that destroying the building

solution, but not to be recommended if you

Control freak!

dig on this

Enumerica's

equivalent of

Malibe

progress in the minutest detail. However you have to keep an eye on the main playing area as potentially important messages can appear at the top of the screen at any time.

A tiny icon by the side of the mini-map allows you to zoom to the subject of the message in an instant, so you shouldn't miss Beachfront too much. Alas your cause is not helped by property to let crammed design, with all the statistical in too small a space. With a nice large monitor, the worse a TV can leave them rather fuzzy. The inevitable consequence of having so many things to control is that you need a lot of butscattered around the screen, or have some icon submenus that kept the overall icon

> Other than that, the presentation of the game is very professional and very polished The game can be installed onto your hard Obviously the more you install, the less disk accessing will be required during game play, vate the FoundationPrefs icon before loading

Feature list

We started to compile a list of features but ran out of room for the review. The wealth of clever little features in Foundation is amazing: distant sound effects, AHI support, mugshots of real Amiga users, complete lifecycles for effects... you could go on forever. It is a testament to the imagination not only of Mr. Burkey himself, but of the hundreds of Amiga users on the Internet who came up with ideas and suggestions for the game. Pat yourselves on the back!



ment, but Foundation manages to be both

Lookin' for trouble?

The combat system in Foundation is pretty straightforward. Fights can easily be started





the game, such as screen and graphics sizes, and what screenmodes to use. Foundation runs in AGA or on graphics cards, although the hefty chip RAM demands really does limit AGA screens to the smaller screenmodes. It's not that there is any problem with the smaller screen modes, it's just that playing in 800 by 600 pixels is nicer. Never mind, you'll just have to get yourself a graphics card!



When you load up the game and sit too addly and uncomfortably slow on AGA) you get to the main menu screen, which sets out the options clearly over an impresimages of landscapes and seascapes which appear on all the menu screens and between levels are an attractive feature.

There are two types of game to choose

included on the CD. You start the game with house. From these humble beginnings you must build up enough resources to progress aspects of the game.

In a custom game you get to create a game to suit your mood. You can pit your wits with between one and three computer opponents, and there are a selection of dif-Different terrain types can be selected which change not just the colour of the graphics, but also impact on the game play. For example if you chose to play on a lava island, not only are you surrounded by a fiery sea, but the harsh conditions seem to cause your people to suffer serious health problems.

Animation?

entirely carried through to the game. The landscape is excellent, but some of the unit detail needs work. The graphics representing game but it would most importantly indicate

> unoccupied in times of labour have to be careful to check the status of your structures regularly to catch problems. Sensible Software/Mega-lomania sort of way but the animation is a little stiff and could do with work. Overall, however, it is a step above what we are used to on the Amiga for this genre, and it's really only the high expectations that it trips up on. There are some nice touches to the game, like the unique identi

Update frenzy!

One month on from the initial release and Paul Burkey has already released nine update patches. The first run of the CD has sold out, and the new pressing will have all these fixes and more, including an improved manual. Features which are promised to come in this and in later updates planned over the cor ing months are:

- · Better character graphics · Faster graphics card support
 - · TCP/IP support for network play · More language files
 - · Mission expansion packs · Landscape editor
 - · Many gameplay tweaks
- · Split screen mode (ves!) · Whatever else people suggest! Locale randered

eraphics of year next contest. One day all islands will be built this way.

ties of individual peasants, each having a 'tasteful' photo and name to aid abuse hurling, and the way the ghosts of dead peasants rise to the top of the screen.

The in-game sounds are good - simple. unexcessive, amusing and not too irritating. There are some nice touches such as when mands, and you can load your own samples for further Worms - like fun. There's even a few new agey CD audio tracks to keep your ears from getting bored - a bit wallpaperish, but well suited to the task and well done. The biggest flaw in this mainly excellent

game is the manual. It has a nicely presented HTML guide, but rather lacking in detail. Ideally, there ought to be a comprehensive manual detailing all the buildings and units precisely. listing what is needed to construct them and what they can produce. An online guide along the lines of the Civilopedia in Civilization would have been a welcome bonus, but as it is, the game can be a little hard to get into It can be challenging to get into this

game, but even early on it is evident that this epic creation has enough potential to keep you interested for many a long hour. Complex, intriguing and ultimately satisfying. the sheer depth and involvement of this game outweighed the rough edges and forced through to a screenstar. Playability suffers a lot because of the limited instructions and cluttered controls, but if the undates cover the issues raised. Foundation

Check out that selected character - that goatee, those glasses... looks just like our dust's Mr Nasti

could ultimately earn several more points. Andrew Korn & Jonathan Brooker FOUNDATION

Number of disks. RAM. Hard disk installable ...Yes



Superstar despite the flaw:





Centra



A few more lost souls are rescued from the deep, dark pit of despair by our resident adventure guru Sjur Mathisen.

Sixth Sense Investigations

In this game as in every adventure game you have to explore every inch of the screen with your pointer to find all the objects. I had problems finding a couple myself so I know how you feel. To get rid of the cheese open the cupboard door closest to you in the cheese factory and grab the metal bar

Then just sharpen it using the stones on the table in the other end of the room, and chop away. The forklift truck in the toy factory needs power to work. Next to the car you should buy at the garage there's a car battery. It's a bit dirty so try finding a towel you can use to wipe it clean. Then grab it and insert it into the engine on the back of the forklift truck. Finally, to catch the mouse

you need some cheese crumbs; you should look in one of the buildings. Guess which. Then you just need the 2 items you'll find in the cupboard in your office. Happy hunting!

Sixth Sense Investigations

Congratulations on making it past where the previous guy was stuck first of all. Now the answer of your problems. You have to buy the empty bucket in the pawn shop. Fill it with oil from the device next to the teleporter and the robot guard. Then swap the bucket with the bottle of oil in the bar (the guy at the table is too drunk to notice).

Give the oil to the "oilaholic" outside and he'll give you a



zwatch watch and he'll take you anywhere whenever you hand him the map. Ask him to take you to the doctor and you'll get all the help you need.

Simon the Sorcerer

read somewhere I need, it so

Deia Vu! I got both these questions from someone the first month I did this helpline, but that's 9 issues ago so I guess I can repeat it just for you.

Those two things are connected. You need to use the wax from the beehive on the barrel to plug it. Then the barman will think it's empty and carry it out-

side Now, how to get the wax. You should head for the castle. Use the clapper, you might have found at the blacksmith's, with the bell and a long piece of hair

will fall down. Climb up and into the window. Talk to the girl, and kiss her. Whoops! Take the repulser back to the chocolate truffle

> house and let the "it" have a little taste of the door Once inside. take the hat and the smokebox. Use the smokebox on the beehive and there you go. Back

where we started, in the bar, ask for a drink to keep the barman occupied while you do your magic.

This worked 9 months ago, so I guess that it still does.

Flight of the Amazon Queen

Tons of stuff has to be done

before you get your hands on it. My guess is that you already have gotten the Vacuum cleaner from Bob, so we'll start off standing next to Bud. Talk to the guy next to him until he gives you the comic. Go back to crash site

and give the comic to Sparky. Go back to Bud. Then take the right path, and then turn east. Talk to the gorilla and tell him he doesn't exist. Go South and talk to Marry-Lou. Ask for the dictionary and swap it for the file. Talk to the others about sloths. Use your sharp knife on the banana Then give to the monkey with the Coco-nut. Go north and through the hollow log. North again and use the Vacuum cleaner on the nice little wasns. Pick up the flower before you go east. Use the button. Talk to the guy with the puppets. Tell him you like the puppet with the stick. Apologise to Fave. Go West and to the pinnacle. Head for trader Bob's and talk to the chief. Enter the store and give the flower to trader Bob. Get the net before you once again return to the crash site. Use the net to grab the perfume. Back to trader Bob's where you give the perfume to Naomi.

Now it's of to Floda Camp to pick another flower. Go back into Jungle and north. Use the flower and then the scissors on the Sloth. Go to trader Bob's and talk to the witch doctor about the Rash Cure. Use the knife on your coco-nut. Then hand over the 3 ingredients to the witch doctor. They are: the coconut, the sloth hair, and the vacuum cleaner.

Now you can make Bud happy, and hopefully I've made you happy. Sjur Mathisen

re, Features this and e complay

estl

imple, ir comamples ep your aperish lone. resent detail.

alittle viiit

if the ts.

Quake Special



to a Nightmare skill teleporter. No

you can increase your ammo to no

that weapon whenever you see it. Note: This works only with the

Quake has more built-in cheats than any other game ever! Try out this little lot then...



into the console mode "-" key), type in as many of the cheats as you want to use and return to the game:

GOD - Unlimited power IMPULSE 9 - Gives you all the weapons, even the thunderbolt else in the game.

IMPULSE 255 - Gives you guad damage.

IMPULSE 11 - Gives you a Rune. You must exit and go back in the

MAPE1M? - You guessed it, this takes you to that map. Replace the ? with a value between 1-8.

NOCLIP - No clipping, pass through walls.

FLY - Fly around using the "d" and

"c" keys to move straight up or

you unless you bug them. B FULLBRIGHT 1 - Suck the shad-

esting code.

can't see you, use with code below. R DRAWVIEWMODEL 0 - Makes

GIVE - Very useful, can have many parameters. For example for shells type "GIVE" then the line below

you invisible.

"Give S#". Make sure you input a value for the #.

GIVE # - Gives you weapon #.

N # - Gives you # Nails. R # - Gives you # Rockets.

The grappling hook ally something called a grappling

and go just about anywhere. To get type "impulse 22", then press Enter. should have the axe selected. To purple blob (the hook) then you'll be pulled across to the wall, ceiling or

Level status

If you're wondering how you're doing on a particular level, you can



and other useful info about your

The nightmare level

If you've beaten Quake on all the difficulty levels, you might want to try the Nightmare difficulty level. which can't be found via conventional measures. To get there, pick any Skill Hall, and on the leading to the fourth episode, The Elder Worlds. Notice that it says. "Your worst nightmares come true

here"? Walk into the water, but not too fast. While you slowly sink. move all the way backward as far of the water again. You'll land on a wooden beam. Walk to your left

actual weapons themselves, not the ammo boxes which will max out as

The death match

different tactical challenge compared to the single player game. These tips should help you cope, onto one of the multitude of Quake servers connected to the Net

No skins

Getting tired of all those campers black skins? Well you can out smart them by using the "no skins" option they will appear in base skins, but to them, you will appear in whatever



Sniping

Use the keypad 'open bracket' key to zoom in and out on targets. This is especially good for sniping.

Suicide

No.

With the Thunderbolt, wait until water. Quickly jump into the water and discharge the Thunderbolt. as there is more than one enemy in the water, you will get at least one



Charging

out of ammo and facing an opponent with a Rocket Launcher, charge him in hope than when he discharges a rocket you will be close enough that get a frag if he dies too!

Strafing

all pro's do. Never stay still when facing your opponent. Always move or around him. Dodge and circle. If you strafe enough your enemy can lose sight of you and you can kill side. Also useful for dodging

Camping

Use dark corners to hide and surprise your enemy. Make sure you have a weapon that will kill with one shot, such Don't stay in one spot too long but move from shadow

The mouse

ir all

but you'll learn in time. It lets you to turn strafe, and manfaster than the keyboard alone.

Mouse aiming

the "crosshair 1" effective for betheavy battles and sniping from long distances.

Armour Don't underesti-

mate the importance of armour. With the right stock of health, you can take four rockets and keep on fragging.

Knowledge

Learn the maps. Know where all the weapons, health, ammo and powerprovide you access to ammo and health. Never be caught outgunned. The average life span is 5-7 frags. Doing the following will surely raise your life span.

Run

If you are outgunned or out matched, don't be embarrassed to leg it and get the hell out

Corner attack

nearest corner. Once passed the ate 360 and grenades

Jumping

dodge your opponent This makes it hard for them to get a clear shot at you. It also makes your enemy use lots of ammo and annoys them tool

Backward attack

Try doing a 180degree turn and run being chased. As you are running backwards away from your

you got. Be careful of Lava and other trans.

180 degree turn

With a key defined to perform an sibilities are endless. The most use ful reasons to do a 180 turn are: if back, you can turn around quickly: or when you just need to make a dramatic course change. Practice performing the turn and see how it benefits your play most. Setting up the 180-degree turn is a bit complex. Enter the following:

alias turn "cl vawspeed 1000; +right; wait; wait; wait;-

on your keyboard. Chris Green



you came.



into your trap. Try not to fall into this trap yourself. When you are chasing someone and they turn a corner,

Fire a Rocket before entering a

room. Shoot into dark corners before and after turning corners. Shoot into the water where you see bubbles:doing this you may get a



Founding Worlds 2

The World Foundry had the idea, but what about the detail? There are a lot of decisions to be made and a lot of information needed to produce such an in depth game...

built up much market presence at the time. Unfortunately our path to PPC was for a long time complicated by the accimonicus squabble between phase 5 and Masage and Partner over their rivis offwere solutions which has thankfully been resolved. The news from World of Amiga has thrown us once more but, for the present, we are con-taining development of the PPC version of

Explorer's quide?

The other result of our growing ministro for the control of th



read contain much more than anythe read foreign more than anything and the present common which is a facilitie wire of the future, as much of the policy we proselve should deal the present of the present and the present of the present and should deal the present any the control of the present any the present any the present present present any the present present present any the present present

incontrols creature be incontrols creature be incontrol as a control was a control with a contro

and beta testing.

Does all this sound a little over the top to you not to us! The heart of Evidence 2260 will be a planet only to find it has

A famous Mogensen beauty... in a
universe this hig, it takes all sorts!



Email confusion!



The external developers



We follow the musical theme with reviews of a couple of major new audio releases, Soundprobe 2 and Samplitude Opus. For the less audio inclined there are cameras, scan doublers and oddments - not to mention the cut-price Slamese V2.1

Sound Probe 2.0

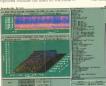
On its original release it was the best thing to happen to Amiga audio in ages. Now here's version 2 and it's even better.

t's back, and it's got more tricks up its sleeve than ever before. Sound Probe originally racked up a 90% score in the Jan 98 issue of CU Amiga.

Since then it's been improved and expanded to include an exciting arsenal of special original properties and new features.

If you missed the original review, go and dig to ut or get if non our back issues department. For now though IT fill you in the general picture. Sound Trobe is a sampling and sample editing package designed to ward with any different narrativane configurations as possible. To that arrativane configurations as possible, to that arrativane port for Aurus. Auru B. Caller, and service that was a support to be a support to be a support to Megalizourus. Megamin Master man and the support of parallel and PCMCDA sampler to a cold if it way in proprietable, including and of this way in proprietable, including and the support of the proprietable proprietable provisions.

and now year year year sounds sampled or own year year year year. An early self-est and early self-est Anything from the mest chydious day effect. Anything from the mest chydious day to day process to the mest abstract. It is almost certain you'll be able to do it with Sound Probe. Reverbes. year, hundreds of them. Flangers and phasers. an unlimited amount of varieties. Then you've got your more exotic options, like the still to be improved vocoder (as used on the yocal in



Air's "Kelly Watch the Stars"), the resonant filter for extreme filter effects, the pitch bending time stotchet. Then there are the useful 'professional' type processes such as the vocal fader (which tries to remove vocals from a stereo sample), the compressor for evening out sound levels and the 128 band graphic equalisies.

Add to those the string of enhancement processes, such as decrackle, brighten, bas boost and so on, and you've got a lot of power at your disposal.

Sample this

For sample-based musicians, Sound-Probe is a godernof. For comple, while the Amiga's most all-ound powerful tracket, OctaNED. Sound-Studio, has quite a few effects while the state of the control to the control based due to the companies of the

crammed into your Amiga, even if it doesn't all work in realtime. That said, many of the effects will work in realtime. The maximum out-

reatime. The maximum output quality of the reatime effects waries depending on the complexity of the process and the CPU power you have available. You can also set a number of sladers and switch as to define how coarse of fine the processing is considered to the control of the complexity of the coarse of the

Any of the effects can be chosen from the generic

ing or not at all. These options also come

De multiband graphic EQ is action.

g to

's

the

bass

et a









with larger samples.

Get lost As with the previous release, it's quite easy to get lost in the program. There are countwhile some areas have been reorganised to aid navigation, you still get the impression easily digestible manner. For example, you might have to open three or four similarly one that includes the switch you need to flick: Sampling, Audio, Audio I/O Control, Project Info. Status, Hardware Settings. Options... which do you pick when you want to alter the sampling device? It's undoubtedly preferable to have more options than less (this isn't a Mac application after all) but at times it does become a victim of its own configurability. Even so, it's odds on that once you've got

things set up for your system you're not likely to need to change them, and who knows, in your search for that elusive button you might bump into a few features you never

Sound Probe uses a freeform system of windows for everything. The only permanent size of a lot of the windows things can get quite cramped unless you have a large screen size. You'll notice that the cover disk demo starts up on your Workbench to ensure compatibility with your system. stretch to it, or a flicker-fixed interlace screen. Otherwise you'll find yourself con-

The multi-coloured 3D FFT displays are now a lot more useful than in the original release. Whereas before they offered an interesting insight into the various frequencies contained in detailed frequency markings on the Z axis. In conjunction with the multiband graphic equaliser and the various filters, it's now a lot easier to pinpoint and boost or cut specific frequencies within your samples.



There have been lots of additions.

made around the system. Here are some of the more prominent new-

- ARexx controllable
- + 128 band graphic EQ
- + Resonant filter
- Vocoder

- Vocal fader

stantly resizing windows and clicking the front-to-back gadgets as you work, which can be a pain.

Automated ARexx

port. This allows you to set up scripts to files - a particularly appealing feature if you ever have large numbers of sound files that need collating, converting or enhancing. For example, if you were putting together a col-Sound Probe to load them all in one by one, maximise their volumes for consistency and from old vinyl records, you could add a Decrackle process in there too, and maybe Bass Boost and Brighten them if they were Overall this is a more than worthy update

you're interested in making your sounds that bit better than the rest then this is an essenpage offers its own individual angle on the too much on offer to be ignored. Tony Horgan

SOUND PROBE 2.0

requirements: 68020 or higher, orkbench 3, 4MB RAM, hard drive

Generally good but there still needs to be more order in the tembols of windows and options. It does things that you can't do with anything else, and does most things you can do with anything else. It's priced to sell and probably works out at about 1p per leature, but I haven't worked it out exactly.



Samplitude See cover disk instruction pages for price and availability details

ike Sound Probe reviewed on the previous pages, samplitude Opus is a sampling and sample editing system. Unlike Sound Probe it doesn't go all out to emulate every effects unit in the universe but instead este its sights on offering an environment in which sound qualify and professional features are

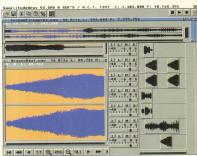
foremost. The last time we looked at Sampliftude was way back in about 1989 when I first interested with it in conjunction with a Masstro sound card. Having since had a Masstro sound card. Having since had an Addoor to been using that same version for the past five years for simple sampling capable of, but these days development of the software has been taken over the CA [Abtracht Computer Technika and it's got rather a lot more to offer.

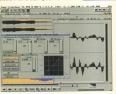
Card compatibility

Samplitude can work with a range of sound cards including Tocata. Profude, Meestro and the Amiga's internal sound chip. If you don't have a sound card you can also sample via the parallel port in 8-bits, although to be honest if you limit yourself to 8-bits you're newer going to push Samplitude. Oous to its full potential.

The focus here is squarely on hard drive recording. While Sound Probe can record to hard drive and edit hard drive files, with Samplitude hard drive recording is the core around which eventhing else fits. The user

You've got a working version of it on this month's cover disks. Let's take a look at what extras the professional option offers.





▲ The virtual project control panel allows you to mix and match various samples quickly and easily

in mind is someone who has a well stocked Amjag Zorro sound card, plenty of RAM, Amjag Zorro sound card, plenty of RAM, 88080, very fast SCSI drives, CD-R... who wants to generate high quality soundtracks for multimedia projects or master commercial quality CD must. This isn't supposed to be a tool to complement the average tracker musicain or the occasional sampler dabbler, even though it's got enough under its belt to cater for most of those too.

A typical session with Samplitude Opus would see a number of sections of audio being sampled direct to hard drive in 16-bit, arranged using the Virtual Project manager (a

played in realtime during editing of sound levels, filtering and other effects processing, then bounced down to a single stereo 16-bit audio track on hard drive. That could then be replayed live from the drive or cut onto CD (with the help of CD burning software).

As you can see from the cover disk edition, there are specific CD creation features included, such as direct importing of raw CDDA data (though not directly from audio CDs), exporting of the same, and also the ability to save out a version of the AIFF sam ple standard that includes imbedded track

Samplitude Opus is mostly concern

There are nowhere near as many as in

Sound Probe, but ACT promise that they are

as accurate and free of distortion as is

possible. Along with the basics like cut strangely enough no apparent Undo), you

will find an echo and reverb option with To be honest they're hardly the apex of

enough. There's also a compressor which can be adjusted so as to even out the volume levels of different parts of your sam-

ples (ie; to keep vocals or live instruments at

a regular level) and a fixed parameter

A The FFT graph comes in handy for filtering. with producing clean results, which is reflected in the effects it has to offer.



▲ More filters are available from the scientific-looking FFT section.



A Strange combo reverb type effects are offered by Convol

SamplitudeOpus V3.5RB @ SEK'D / R.C.T. 1997 C: 1.291.656 F: 18.142.432 0| FXBass3.wav 16 Bits L: 74.248 H: 296.992 o | New2 1816 10. . · 6 . 9 . 9 40 . . 9 . 9 . 9 40 6 9 6 40 . 6 9 6 Stop Pause 40. . . 9 . 9 . 9 O Rux1 | Input 40 .-6 9 9 40. . . 9 . 9 . 9 ► N A 1:1 Q RNG Q BLL V

Hard drivin'

To get the most fromSamplitude's professional hard drive editing features you'll need to get your Amigaproperly kitted out for the job. Working with relatively small hard drive samples of around a minute or two in length won't overly tax the average system, but if you want to work with an entire chunk of CD audio (70 minutes or more) you'llneed a very fast SCSI interface and a large fast hard drive. You'll need at least twice as much hard drive capacity as the amount of data you intend to work on. A minimum for a full CD's worth then is a 2Gb drive.

It's also essential that your drive is formatted and partitioned for optimum performance with enormous files. Make sure the block size is set to at least 16K. With a smaller block size and anything but the best in SCSI controllers you could find yourself going insane as you wait what seems an eternity for selected sections to be located and played from the hard drive. Then you've got the business of cutting, pasting and processing to contend with. One day soon we'll be able to afford to have 2Gb of RAM on our desktops. I look forward to that day...

Denoise function (it doesn't offer any es is the EQ section. This offers a 2D graph for overall frequency response and also a 3D FFT display. Using these as a guide to the select three frequencies to be cut or boosted by your chosen amount, then see the effect it has on the FFT and of course your sample.

The most interesting feature here is the Convolution effect. It's not explained well in the documentation, but it seems to map certain characteristics of one sound (from the copy buffer) onto another (the currently selected sample). In most cases it sounds as if reverb reflections from the copy buffer are mixed with the main sample, although in other cases the two seem to be melded together in a more subtle fashion. Unfortunately the output level of this effect seems to rise from start to finish, making it difficult to keep the volume of the resulting sample under control.

Take your pick

It's a case of horses for courses whether you're going to find Samplitude or Sound Probe more to your liking. Fortunately for each other they're not both going for the same ground. If hard drive recording and A Recording direct to hard drive is made easier with the level meters and independent left and right gain controls.

editing is a major requirement of the jobs definitely the favourite. With its multitrack mixing and virtual project system it will make your life much easier and given the right hardware is up to the most demanding of audio production jobs. Tony Horgan



m requirements: 68030 (including PU), 2MB RAM, 0S 3.0+ with large hard drive projects and while not a ue for money of fee the professional market but fairly rea

en be

Eyetech CDPlus SE

- Price: from £99.95 Supplier: Eyetech © +44 (0)1642713185
- Web: http://www.evetech.co.uk

For Amiga 1200 owners who have not yet joined the CD-ROM revolution, here is the fast and cheap Eyetech CDPlus.

attached to your Amiga, then now is a tions for the A1200 at under £100. Evetech, purveyors of all things IDE for the their CDPlus SE systems. They offer a 20x speed CD-ROM drive for £99.95 and a 32x speed one for only £20 pounds extra.

The Package

The CDPlus SE package consists of the CD can specify an audio mixer. The is a useful and allows you to mix together the audio

Not fast enough?

The point of buying a 20x or 32x speed CD drive, obviously, is for its performance. So how fast are these drives? A standard (1x) speed CD reads at an average rate of 150 Kb/s. So, theoretically, a 20x speed should read at 3.0 Mb/s and a 32x speed at 4.8 Mb/s, right? Wrong. The speed quoted is actually a maximum speed and will only ever be achieved when the drive is reading from the outside edge of a disc. Add to that the poorly implemented IDE interface that the A1200 is blessed with and things slow down considerably. The ATA IDE standard that is

implemented via the A1200's interface is known as PIO (Programmed I/O) Mode 0. Mode 0, theoretically, has a maximum transfer rate of 3.3 Mb/s and is a non-DMA standard. This means, that basically, the processor is required to perform the data transfer.

output of your Amiga with the CDDA output 20x and 32x, are manufactured by Lite-On, but not these: they are whisper quiet.

machine via the 4-way adapter. This is a device which fits to the IDE connector inside your A1200 and allows you to use up to four a simple process, helped by the clear instructions supplied. This latest revision of the 4-way adapter seems more stable than previous releases, although it may create ver software provided is a registered but



restricted version of Elaborate Bytes's ware you immediately gain a 30% increase

The performance

How do these drives perform in practice? In raw transfers tests, when using the full EZof about 2.0 Mb/s. (For reference, an 8x drive with the same setup gave 1.2 Mb/s.)



Although this is not amazingly quick, it is quite impressive given the fundamental limitations present. The fact that the results were similar for both drives is because of since it has a better seek time (that is, it can locate a required position on the disc more about 20% faster than the 20x one. So, these drives are no slouches, but don't expect miracles.

The judgement There is no question that the CDPlus system is of high quality. But is it worth the money? OK, the extra performance boost given by the 32x drive may not be enough costs - so perhaps this is not such a good deal as it seems? Regardless, the CDPlus, even in its basic form, is highly usable and offers an economical way of accessing CD-ROMs from your A1200. ■ Richard Drummond

EYETECH COPLUS SE

Should pose few problems Not blindingly fast, but fast enough spite the hidden extras, still good value.





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VDC200p Digicam

■ Price: £199.95 ■ Developer: Power Computing C+44 (0) 1234 851500 ※ www.powerc.com

Power Computing follow up their first entry into the Digital Camera arena with another budget wonder.

tal camera stakes (reviewed in the June 1998 issue), this camera comes from Taiwanese budget scanner maker Mustek, Although a significantly higher specification

100, the VDC-200P should not be

thought of as Mustek's assault at market, more a way in to the bottom end for people who could not live with its feature - free smaller Structurally the VDC-200P is a big improvement over the cheaper Power camera, larger and better shaped to fit the

hand. The camera is simple enough in use. too - not as simple as its stable mate, but then this camera has a few more functions than the ultra basic VDC-100 The most obvious new feature is the LCD

screen at the back. You can monitor the image coming through the lens in real time. giving you a rather better idea of what to expect when you press the "shutter" button. The functions of the camera are also selected through a menu displayed on the LCD screen. While switched to Camera mode, the menu allows you to alter the brightness of the screen, set the self timer, select high or low resolution images, and switch the flash on or off. In Playback mode, you can switch between a nine picture index view or single picture or clear the entire memory. The software supplied with this camera is

a minor update of the same PowerDC software we looked at with the cheaper camera.



come out rather salt but

It allows you to fetch the camera or down-

load them singly; the LCD screen allows you to preview the images in memory and download only the ones you want. You can save the image as a JPEG, an IFF24 or a PNG. You can set the serial device and connection speed, and can configure your own viewer software or use PowerDC's own. As before you can use PowerDC to take a photo remotely, but with this camera you can also set all the camera functions direct from the functions button and you can switch resolu tions, control the LCD and flash.

PowerDC is admirably functional and simple, and a lot more stable than the crash-prone PC software the manufacturers supply in the box. The image quality is a step up from the cheaper array is common between the great improvement, still low grade and fuzzy. With 2Mb on board, however, there is less compression of the images and it

even switch the camera off.

Dynamics

The dynamic range is poor, so that bright objects against dark backgrounds tend to burn to white, and colours are not too stable, being balanced well for daylight but faring less well with fluorescent or incandescent light. The flash helps out in this but it has slightly too strong a forward response leading to spotlighting and glare. A simple two down the lens aperture if it gets too bright, but close - up flash or bright sunshine can

> be sufficient for small images in a DTP document or on a web-page however - look at the examples on this page and make your own mind up. As with the cheaper Power Digital camera, this one majors on value for money. To get these kinds of features you normally have to spend rather more money than this. Image quality is still rather suspect; again not surprising, but the price is heading further

towards the territory where you start expecting good image quality. If you can stretch your budget another 60-70% you could afford an Olympus 420L, a much better camera. On the other hand if you're going to have to stretch your budget to afford this camera then do it, it is miles better than anything cheaper. Andrew Korn

V ... But with careful light and a hit of sharpness added with post processing, quality can be very

A Bright sun-

light can wreak

have with the

law dynamic

range of the

VDC200p Digicam

020 and 2Mb re Software is all you would need, image quality isn't quite.

od package with accepta tput and a fantastic price

Specifications · Resolution: 470k pixels

· Memory: 2Mb, gives 50 pics at 320 by 240 or 20 at 640 by 480 · Viewfinders: Optical with simple frame finder, 45mm colour LCD · Focus: Fixed

. Aperture: f8.0 and f2.8 · Outputs: Digital out, Video out,



■ Price: £29.99 ■ Developer: Siamese Systems ©01525 211558 ※ www.siamese.co.uk

Siamese RTG becomes available at a budget price - but it is serial only.

egular readers of CU Arriga the fairly tarnitar with our positive opinions of the sames software. The problem is that a lot of people aren't entirely sure what Samese would offer them — It is a quite unique product in the world of computer software, and it is often said that without a live demonstration, non-will really see the value of Samese.

Samese V.1: CD contains a mass of documentation on the Simmese system, including the entire Simmese web site and several digitation of the Simmese web site and several digitation. There is also the Simmese V.2: Softwere, which is bascally the same as the fall V.2.5 mTG softwere v.2: The same as the fall V.2.5 mTG softwere except that it will no mily very simple installation from CD for both the Arriga and a PC. The two are connected to the contract of the very simple installation from CD for both the Arriga and a PC. The two are connected to the very simple installation of the connected and modern cables in outprovided.

Aptly named, Siamese motids your Amiga and your PC topider. It is possible (In offusion) in [of normal end were PC topider with the mouse and keyboard of the other. You can transfer files much in the manner of the various new PC/Amiga networking solutions and you per Collargia networking solutions and paste into a document on your Amiga and paste into a document on the PC, or vice-versa. The range of functions to be installed is set up form a nice straightforward prefs program on the Amiga side.

The most intriguing and powerful of these functions is RTG mode. When this is activated, you will find that your Amiga's screemode selector contains new SiameseRTG screemodes. When a program opens a screen in one of these screemodes, the screen is opened up on the PCI The Siamese

The screen redrawing is not 100% perfect; small amounts of corruption occur, especially with MUI applications, but this is a very small price to pay and never worse than slightly amonying. The bitmap slowdown makes something like a PPaint slow, but as it worsk by differential updates, it is almost useable. Over Ethernet, it is quite fast enough. Wordworth, which updates the screen far less intelligently, is unusable Open it on the PC screen and you can

watch it blit grey blobs to the screen for a

couple of minutes before it manages to fig

client intercepts the screen drawing commands, sends them down the serial cable, and redraws them under Windows. What this means is that you can open your Workbench screen, or a PPaint screen, or whatever else uses retargetable screens, on your Windows 95 or NT desktop.

How fast?

As the connection is over serial, the speed at which an Amiga severe is drawn on the PC is not terribly flast, even if you are running the system through a fast serial add on such as the whipact. The resy is eath serial add on such as the whipact. The resy is eath serial and on such as the whipact. The resy is eath in the running region are recreated on the PC side, meaning that only the drawing instructions need to be essen; birriang grantises have to be some third bear the result of the running and therefore take a lot longer. Opening image PX on the PC, the screen pagnets draw vary grant part of the VIII to screen pagnets of the vary and the result of the view of the



down when any individual update has to be drawn is not a problem, while for an AGA Amiga owner, the benefits of opening the ImageFX screen on a large 24bit PC screen are considerable.

ple Amiga applications on a nice 24 bit display under a nasty operating system.

you open multi-

Vou can even open a Workbench screen and an Opus screen simultaneously



Siamese Ethernet

Siamese V2.1 is in fact a very clever advertising gimmick. It is cheap enough to be tempting to try, useable enough to persuade people that they want it, and slow enough to make people think seriously about upgrading to Siamese Ethernet. With an Ethernet connection, even bitmaps are drawn pretty fast - Siamese over Ethernet is amazing.

Serial well got committee to over

Serial swill not normally go over 1520 bytes white Ethernet can drive Sianness at up to 500k bytes a second. If you have an Ethernet card for your Amiga, then the full Ethernet radiy software will set you back 1899 95. Alternatively you can get it with a hydra Ethernet card for A1200 or A4000 for £1990.5 In either case, Sianness systems will refund you the full cost of the VZ.1 CD. Smart movel

ure out a blank page. On the other hand Pagestream works great, especially if you diglys bitmaps with outlines. Workbench work very well, a clever little touch replaces the backdrop image with one stored and drawn locally, so you can have a nice Workbench backdrop without that having to travel over the serial link.

There are certainly imperfections with his simese software. I found that the option to mount PC drives did not work on my compare or apparently his is because it clushes with the deficions option in NewCoron. Compared to what author Play Noben has achieved with the system, these imperfections seem tile entry topicities that you can be sure with gas in time. What Sciences does jut only much on the contraction of the contraction

SIAMESE V2.1

System Requirements: Amiga with 053.0+. P with Windows 95, null modem cable

Not had, but still a little clusky, some odd difficulties occur
Performance 99
Vary slaw, but what it does is amazing
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Scan Magic

■ Price: £54.95 (Internal) £99.95 (Internal with flicker fixer) **■ Supplier: Power Computing © +44 (0)1234 851500**

http://www.powerc.com

For ages Amiga 1200 users have been crying out for scan doublers. Now the market is awash with them.

scan doubler is a device which allows you to connect a high quality VGA monitor to your Amiga and be able to view the native video modes on it. In the devices for the A1200 to appear on the market, manufactured by Micronik. Here we look at two more from Power Computing. Power's Scan Magic comes in two internal versions: one with and one without a and PAL screens on a VGA monitor, while the flicker fixing version also gives rocksteady interlaced modes as well.

Plugging them in

4000

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s the

n like

it out.

Both versions of Scan Magic consist of a small circuit board connected by a piece of ribbon cable to a double-sided socket. One side of this socket plugs into the RGB port of your Amiga, while the other is a standard monitor. This circuit board fits over the Lisa custom chip responsible for generating the AGA video signal. Installation of Scan Magic is a similar

process to that of the Micronik scan doubler, although simpler and tidier since it has only one board. Unless you have a tower-cased 1200, though, you have to dismantle your machine, removing the keyboard, floppy drive and the shield. You are also left with the problem of what to do with the cable that joins the two halves of the Scan Magic together. Obviously, this is a device more suited to a tower system.

Do they work?

works invisibly, giving crisp, steady images with the non-laced video modes. The display quality is on par with the Micronik devices, but a similar flaw occurs: no black borders. That is, the black border effect produced by

creditable job with interlaced modes, too. For static images it is perfect. For moving images, however, there is a discernable flicker. This is a consequence of the way interlaced modes and the de-interlacer function. A complete display is built up in two monitor refreshes. In the first frame only the odd rows are produced, whereas the even rows are filled in on the second frame (and so on, in alternation). On moving the mouse pointer, for example, when the second half pointer has moved from where it was when first half was displayed; hence, the flicker. This effect is tolerable, however.





The Scan Magic



A1200 and SVGA m

A cheap way to get a high qual-ity screen display

FLICKER FIXER

tem Requirements: A1200 and SVGA mon

The best Amiga display this side of a graphics card



Living with AGA

So you have got yourself a flicker fixer and a nice VGA monitor. How do you overcome the two main limitations of AGA: namely, its poor speed and its limitation to 2Mb of graphics memory. 1. Open WB on a Multiscan Productivity screen to get a solid 640x480 display. (If you have a flicker fixer you may prefer. say, PAL laced at 700x500.) 2. Don't make screens too deep. Lots of colours will slow the system down and consume memory. If you have a fast processor, 64 colours is quite usable 3. Use a WB replacement, Workbench's allocation of drawing pens is poor. Replace it with, say, Scalos, to make better use of that limited number of colours

4. Get a copy of FBlit. FBlit is a hack which replaces some of the OS blitter functions with CPU functions. This has the benefit, for fast processors, of speeding up blitting operations. It also gives you the option of forcing named programs to use Fast memory for nondisplayable bitmaps, thus conserving precious Chip RAM.

Are they worth it? Both versions of Scan Magic are excellent,

the standard version especially so because of its low price. The flicker-fixing version is worth the extra cash if you need de-interlacing; it does allow you to have large, steady screen displays, but you will have to live with the update flicker. Richard Drummond

INTERNAL SCAN MAGIC

INTERNAL SCAN MAGIC WITH





Catweasel Mk II

■ Price: £49.00 ■ Developer: Individual Computing ■ Supplier: Golden Image © 0181 900 9291

The peripheral that no-one can manage to spell correctly gets a whole new incarnation.

Lused to be so simple when the only amonying thing about Amiga floppy drives was the clicking. But once it became clear that the rest of the world was using high-density floppies, Amiga owners discovered that Paula is incapable of handling high-density floppies at full speeds. This was a bad thing, and has condemned us all to a life of expensive solutions for accessing HD floppies so important to taking with PCs and Macs.

The advent of cheap removable media like the Zip has taken some of the sting out of this necessity, but it's still handy to have.



PCE which

has a cats

Therefore, the IDE option is not recommended for desktop A1200s (heat and space are also serious concerns). For towered 1200s or other machines with an IDE bus, the beefier power supply should be sufficient.

The clock header provides sufficient power for the Catvesseal. The manual states that you can use the power connector if necessary, but I cloud that plugging it in actually caused horible system instability and made the unit extremely hot. The Catvessed the unit extremely hot. The Catvessed off of a standard Amiga lipopy disk (meaning you shouldn't throw away your old drive until you install the Catvesses software and make sure it's functioning!)

Calling the Clock Port

Two of the biggest complaints about the A1200's design were the lack of a high-density floppy drive and the lack of a batterybacked clock. Insteed, the computer came with a small 22 pin header where third-party clock modules could be placed. The Cativeased Mk II takes advantage of one problem to solve another.

By now, just about everyone has a clock on their accelerator card anyway, so that clock port is tantalisingly idle. In order to use the Catwesse NR in to the clock header, you need the "correct" header. The most connom is a 22-pin version which alls in the middle of the machine, near the keyboard connector and lat less and some models junder a small, independently removable first and some models junder a small, independently removable first and some models junder a small, independently removable first and some models junder a small, independently removable first discount of the principle of the

Like the original Catweasel, the Mark II can also live on the IDE port, but that requires a custom cable for A1200s and means you're hogging a spot on the IDE bus, although there is a passthrough, if you connect to the IDE bus, you will need to power the Catweasel by plugging in a supplied cable to a hard drive power connector.

Word of warning

The Catweasel was incompatible with the Apollo A1200 030/40 accelerator board but did work with a Blizzard 060. Check if your card disables the clock header in an A1200.

Getting your floppy in The primary use of the Catweasel is to

replace the Arniga floppy with a cheapie PC high-density floppy drive. Of the various manufacturers out there, the developers have tested most, with Teacs coming highly recommended, most others offering acceptable performance, and Mitsumi/Newtronics drives singled out for unreliable operation, particularly on disk writes.

You should be able to find a non-Missum diver for relatively how. With a title bit of work you should be able to get many models to were for some find the properties of the wind seven of course for other machines they will mount in a standard drive buy. The Calvavesel transit floopies in an odd fashion, Rather than calling your floop p/PC, the first drive is always will propose, and the properties of the properties of the properties of the properties. Reading PC districtions are used to provide the properties. Reading PC districtions are used to provide the properties. The properties are used to PDD and PMD, accordingly, Audate from being a bit unconventionally a bit unconventional and transitions.

also cutters your Workbench with "had disk" ions in speed tests, the Catwossel performed substantially quicker on HD Oppers than an Adol HD drive bleasase it can read at full speed, but sightly because it can read at full speed, but sightly because it can read at full speed, but sightly because it can read or drivers it is not all drop-in replacement for PFO, although you can run a patch to allow the Catwessel to act as a boostable drive. SIA hard-coded programs seeking DFO or particularly runsky copy volucion rundines will not have been programs on the program of programs and programs and programs and the programs of programs and programs programs and programs programs

bonuses. One is the ability to add a 5.25 inch floppy, which has a very nice 1541 filesystem (for access to C64 disks) as well as the ability, with some extra tinkering, to read Amiga, PC, Atari and Apple floppies.

However, since most PC 5.25° disks cannot meat the back side of single-deted 85 bit disks propelly (due to index-hole issues) you may need to make a modification to whatever of their you pull off the scrap hees. Also, for 5.3° fleepies in light-density mode, there as one over 2 meglybres on a standard 10° bopy disk, but since northeir pull and other Carbowses can read it this would primarily be for personal achieving because it in not a DPD replacement, the Carbowses link in a porfect option for Ample of the control in the ending and the dark principle of the Labor Corentine.

CATWEASEL Mk II

System Requirements: A1200 with 22-pin clock header, any Amiga with IDE interface

The best overall way to impro your floppy capabilities



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CYBERSTORM

A4000/4000T/3000*/3000T*

060 Accelerator



(4Mb) £ 155



Blizzard 603e **Power Board**

Blizzard 603e+ **Power Board**

Blizzard 2604e+

Power Board

£ 469



CyberVision PPC (8Mb) £ 189

Dave Stroud: has modem, will download. Here he is with another selection PD and shareware available from the Internet.

BallMaster (demo 1)

Type: Game Available from: Aminet: game/demo/BallMaster.lha

Requirements: Any AGA or ECS Amiga. BallMaster

Master of the balls, or just a load of the same? Well, there's a lot of them (balls, that is). You have to rotate wheels with holes in to get the balls to drop into the holes. You need to fill each wheel with four identically-coloured balls to turn a little light in the middle of each wheel green (instead of red) and complete each level. Er, that's it. If all that sounded a bit uninspiring, then I guess we're on the same wavelength. You see, BallMaster isn't very interesting. It doesn't look attractive and doesn't sound attractive.

You load it up, and you see a bright yellow topaz font (did I mention I hated that yet?) on a black low-res screen telling you that "Autumn Design presents BallMaster. Demo Release One... Press mouse button to continue... (ESC to quit)". My gut feeling was to hit "Escape" there and then - to save myself from the despair that would usually follow such a bland introduction, but I thought:"No, wait a minute. There might be something to this game that I'm not

expecting. Something truly awe-inspiring which will capture my attention. It would be wrong to judge a book by its cover," etc. I pressed the mouse button. Another screen of ghastly yellow Topaz! Aieeee! And this is the AGA version!?! I pressed it again, hoping that there would be something to reward my blind faith. A red screen with brown wheels and different coloured balls rolling backwards and forwards. Oh. I'm really sorry to have to say this, but as it stands at the moment, BallMaster just isn't very

interesting. Yes, it is playable (in that it's

not broken), but that's about all. With an

overhaul on the graphics, sound and pre-

sentation, it would stand a much better chance of keeping me occupied for more than a few seconds However, it is only a demo release, so it may well improve beyond all expectations. Don't let me put you off from making those improvements, Damir - I'd like to see this game in its final incarnation

and be proved wrong! **

n | Insulter vt 0 01998 by Paul Knienhov Insult Mode [Modern Aho You unwelcome truckload of Ewok excreme

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GetPaved 1.1

Type: Payroll calculator

Requirements: MUI 3.3+, Listtree.mcc 17.0+, reqtools.library 38+.

Do you spend countless hours at work these days? Don't know whether you're coming or going, clocking out for your lunch break, tea break, or because you've finished for the day? Forgotten when and how much you're due to get payed each month? Wish you didn't have to work at all? GetPayed won't tell you if you're in the wrong job, but it might prove to be an invaluable piece of software for those of us who work on a schedule with varying rates of pay depending on the time of day/week.

By tapping in all the information about how long you've worked each day and specifying the rules which determine how much you should be payed per hour depending on when you work, GetPayed will do all the hard work for you in working

out just how much lolly you're entitled to. The main project window provides tabs for every month of the year, and reports can be generated for a specifiable range of weeks or months. Calculation is done via a programmable set of rules, and is therefore much more flexible than it first appears.

Rather than specifying one or two fixed rates of pay, it is possible to specify different rates for different times of day, days of the week, even specific days of the year. GetPayed features an API which will allow

further expansion in the future. For example; currently, reports can only be saved in GetPayed's unique format, or as plain text. Thanks to its API, different file formats as well as new rules for pay calculation can easily be added to the program.

Reading the documentation is thoroughly recommended, as it will undoubtedly take a while to get used to the intricacies of GetPaved's workings - a short tutorial could really help out here. GetPayed's author isn't sure of the program's future, so if you use it, be sure you drop Thomas a line to let him know you're interested. ****

Insulter 1.0 Type: Stress-reliever From: Aminet:util/misc/Insulter.lha Size: 21k Requirements: A sense of humour?

If you know what it's like to get really annoyed with people on Usenet shouting, complaining, flaming or spamming in excess, you could well appreciate this little program. The first insult it threw at me when I loaded it up might not have been out of place in the Stat Wars trilo-

et.

Abou

in



point, it just didn't make it into the final cut). Not only does insulter gladly hand out toilet-humour one-liners, it can do it in "Modern" or "Classic" tongues. "Thou bawdy sour-faced gudgeon!

"Shakespeare it may not be, but a welcome reliever of frustration and source of small amusement it is. It's even got an ARexx port, so you can integrate it with your favourite Email or News software and dish out various insults on certain individuals who don't know when to shut up. Ah, what fun.

It's a shame that insulter doesn't appear to come with datafilies which can be changed or added to, because as it stands. It will tend to repeat itself half the time rather than give you a truly wide variation of insults. Despite this, it did manage to come up with, "You Windows using crate of earwax," so the fact that it's based on an old MS-DOS program obviously didn't stop Paul from experimenting with new phrasup with percentage of the company of th

Finally, Insulter will even use your Amiga to insulty ou audibly if you so wish, as long as you have the Amiga OS's "speech" facility. Quite why, only Paul knows. I know it's not the most earth-shattering of utilities to ever grace the Amiga, but it's fun. light-hearted and above all will at least bring a smile to your face.

MUI CD Player 1.12

Type: CD Player
From: Aminet:disk/cdrom/muicd.lha

ize: 169k

quirements: MUI 3.3, NList.mcc 0.48, ATAPI/SCSI/CD32 compatible CD-RC

If you haven't already got your-self a CD player for your CD-ROM drive (something which nobody should be without these days) then MID CP layer is the first stop you should make. I won't say anything about it needing MIJ, as

that should be



plainly obvious. Instead, I'll talk about the new features of version 1.12 like balance control, position slider (which makes skipping to a particular place in a track as easy as you could possibly want it) and a new library for ATAPI/SCSI devices.

An installer script has also been provided as from this release, and it makes setting up the program to work on your CD drive simply effortless, working flawlessly on my machine as soon as it had been installed. Lovely. The included CD Manager is also feature-laden whilst remaining intuitive, providing the ability to edit disc information, search through all or part of your CD collection for keywords and import files from other CD players. saving you typing in all that information a second time if you decide to move from your regular brand of CD player to this one.

The button images are just IFF brushes, so you can make your own if you don't like the look of the four sets provided in the archive, and a program can be saved for each CD, so that such a contract of the saved for each CD, so that such a contract of the saved for each CD, so that such a contract of the saved for each CD, so that she contract of the saved for the saved for the saved for saved

that are desperately needed. It's all there, and a quick flick through the documentation is all you need to discover how to do anything which isn't immediately obvious.

Best of Aminet

Several small birt useful tools have found their way took Aminet this month, will say o'CuisfolM his (128) being the first. This is one of those utilities (128) being the first. This is one of those utilities which copies the Aming's Kickstart Int foat memory, and claims to speed up the O.S. as a result. Now on vestion 3600 his GlockHOM second Aminet on vestion 3600 his GlockHOM second Aminet discovered to the Aminet of the Aminet o

which possible another bound for your system by a searching for libraries that are no longer required by the programs that you use. These shared illurates can halful up quickly on a system where lost of different programs are installed and deleted on a requicient program are installed and deleted on a requirent program are installed and deleted on a requitation of the second section of the conpanies of the second section of the contraction of the section of the contraction of the section of the section of the program of the section of the section of the program of the section of the

util voh Ticlock Illu (158) and util voh Warp-Will 2 Illu (158). The former is vet another Workhooth clock, but deserves a mention for not being bloated by seemingly infinite spotons. Simple, but effective—just like Warp-Will, which helps to keep your Workhoeths scene toll by a closing do windows set face the Warp-Will, which helps to keep your Workhoeths scene toll by a closing do windows set face the SEAD is seemed face any any times at the time of face the SEAD is seemed face any any time at the time of face the SEAD is seemed face any any time at the time of Laboratory Facility plane, labes, deman and trampet and probably wouldn't sound out of place in a jazz club. Mommin, great place is a face told. Mommin, great and probably wouldn't sound out of place in a jazz club. Mommin, great



It's Richard Drummond, with another luvv-erly bunch of useful PD games and utilities available on disk.

Chaos V3.3

Type: Graphical/mathematical application

Available from: Online PD, Unit 5, Embassy Building, 51A Piercefield Road, Formby, Liverpool L37 7DG

Tel: 01704 834335 Price: (3 disks) £2.25 plus 75p P&P per order

By Martin Pfingstl, purports to be the last word in chaos and fractal exploration. Fractals are experiencing something of a renaissance - thanks to the prevalence of fast CPUs and colourful graphics displays - and ChaosPro is the Amiga's offering as a state of the art tool for navigating this complex domain. It is aimed as a rival to tools like FractInt on the PC (which has now been ported to the Amiga), but outclasses this product easily.

What is immediately mind-boggling about ChaosPro is its sheer scope and power - and the

fact that it is freeware. It boasts features like full multi-windowing and multi-threading; the ability to scroll and zoom images while they are still being rendered; a formula editor; 3d transformation and animation tools; 24bit IFF and graphic card support; and an ARexx interface. It can generate Julia and Mandelbrot sets, Lyapunov Spaces, Plasmas,

Bifurcation Diagrams, Lindenmayer Systems and much more. Although ChaosPro is not the fastest fractal generator on the Amiga, the fact that it is multi-threaded makes this fact irrelevant. It is quite possible to pin-point and blow up an area while it is still being drawn or even to work on a completely different image at the same time. This makes ChaosPro a very

efficient package to use. The only real limit is your machine's processor power and memory and hence this program would benefit considerably from a high specification machine. The minimum requirements are an 020 with FPU



face is a standard GadTools one, which is clear but tortuous to use. For a program of this intricacy, a more advanced GUI would be appropriate: it is just too difficult to navigate your way around the maze of options windows and tools docks. ChaosPro has so many features, that finding

the one you want can

ChaosPro's user inter-

Nevertheless, ChaosPro is excellent. It is one of those pieces of software that you will tinker with for ages. If you have an interest in mathematics, would like to create some stunning images, or just want something to show off the hardware power of your Amiga, this is the program for you. ***

EdPlayer V2.1

Type: Module player utility 54 Carmania Close, Shoeburyness, Essex

Tel: 01702 295887

Price: £1.50

EdPlayer is module player for NoiseTracker, Pro Tracker or MED modules. Visually it looks like a CD player and this resemblance extends to the

interface as well. The version I was supplied with lacked any documentation. This is not too much of a problem since anyone can operate a CD player and the program has online help, but the user is left with no information on EdPlayer's ARexx port. Ed player opens only on a PAL screen, which is limiting, but it

EdPlayer W 35 Oyen 1000 Version 2.1 by Ed Mackey.

> does have lots of other options, e.g., controls for MIDI, Filters, Tempo and programmability. Despite its limitations EdPlayer is a visually attractive and useful way to play your collection of modules. ***



Galaxians V1.3

Available from: Classic Amiga PD, 11 Deansgate, Radcliffe, Manchester, M26 2SH Tel: 0161 723 1638

Price: £1 plus 75p P&P per order

ful

Most of our readers should be old enough to remember Galaxians in the arcades, so this title needs little introduction. Galaxians V1.3 by Kevin Gallagher is a near perfect conversion - graphically and sonically - of that old

coin-op classic. Enough said, really, My only complaint is that, because it is written in AMOS, it will not multitask with the rest of your system. It would have been a great little diversion to occupy time when you were waiting for your mail to download or for that latest C behemoth to compile - but sadly no, this is not possible. Still, it's a good game.

Embassy Building, 51A Piercefield Road.

Assimilation

Formby, Liverpool L37 7DG

Price: 75p plus 75p P&P per order

The creators of this game, Fullspeed

Creative Development, were also the

Karting. This may give you some idea

shoot em' up with all the usual cliches

power ups and end-of-level baddies; but

Graphically the game is unimpres-

colour makes it look like it is running on

a Commodore 64. In fact, this 8-bit feel

extends to the gameplay as well. The

only novelty is the unusual addition to

the control method of your spaceship:

sive. The uninspired and drab use of

of the genre. There are attack waves.

what this, a freeware effort, is like.

creators of the commercial game Virtual

If you want a dose of highly playable nostalgia, you could do far worse than get a copy of Galaxians. ****



FotoFit 98

11 Deansgate, Radcliffe, Manchester

Price: £1 plus 75p P&P per order

CU's deputy Editor, Andrew Korn, was fascinated by this program. He would claim that it is because he is an artist, but I think it is just that he hasn't grown

identi-kit process used by the police to identify criminals. That is, you can build up an image of a face using standard parts or features. For example, you may choose a particular head shape, hair style, nose shape, etc. from a supplied set. That is just about it - not stunningly

There are a few glaring omissions with the package: although it allows you to print out your efforts, you cannot export them as picture files. Also, a few standards tools, such as resizing and stretching of images for example, would

> need of a then get copy of FotoFit and make some

> > your mates.

FotoFit allows you to emulate the

Nevertheless. if you are in cheap laugh

be a bit more

instead of just moving your ship up or down when the pushed up or

no plot.

down, the pitch of your ship increases and On the whole

Assimilation is a competent, but unremarkable game. At this price, though, it is still worth a

FoToFiT '98

MajorBank V1.91

11 Deansgate, Radcliffe, Manchester,

finances.

Price: £1 plus 75p P&P per order

If your cash flow is a catastrophe and your fiscal planning a fiasco, why not let your Amiga take care of your budget? MajorBank is designed for just this purpose: it's an accounts package to help you manage your personal

The metaphor that MajorBank employs is similar to that of Digita's Money Matters. You can set up a num ber of accounts, say, one for your current account, one for your Visa, another for a loan, etc. You can then manually enter transactions for each debit or define automatic transactions which are applied at regular intervals (like salaries, direct debits, etc). To each transaction you may apply a category to help you see where your money is going. MajorBank also offers tools like the cutting, pasting, searching, sorting and graphical display of transactions. It allows the printing and the importation and exportation in various formats of data. This freely distributable demo version is limited to 100 transactions. The full version is available from the author. Donat Michel, for \$20 (about £12 50)

The user interface of MajorBank is well thought out and all the program's functions fall readily to hand. The GUI is realised in the ClassAct style, which is none too pretty, but features like its adaptiveness to font and screen size mean it is a big improvement over Money Matters. The account transactions are all shown in one listview on a backdrop window; access to any of the other (up to 10) accounts that you may have open is via a tab gadget. A consequence of this is that you may view only one account at a time, whereas I would have preferred a multi-win-

MajorBank will not make you a millionaire but remains a useful application.





Are you a Digital Dali? Computer Carravagio? Send your pics to:

Art Gallery, CU Amiga, 37-39 Mill Harbour, Isle of Dogs, London E14 9TZ.



See your work in print... and win a print, too!

Each month we will declare one picture in the Gallery to be picture of the month – and if it is yours, we will send you a print of your work output to an ultra high quality IRIS printer on classes pages (that's ground 25-30 quiet from a print shop to you, guv') – you will newer see your work looking so good! If you want to enter a picture into Art Gallery, either email it to artgal@cu-amiga.co.uk or post in on disk to our We recommend PNG format as it saves a lot of disk space, but alternatively GIF or IFF are fine.

"'JPeg' drops image quality so avoid where possible – also never use for images with 256 or fewer colours.









Let our international user-group directory put you in contact with other Amiga users in your local area. To add a new group to the list, just fill in the form on the opposite page.

Amiga Christchurch Inc. Meeting times: Second Tuesday of every month 7:30 pm.

Amipack

Address: 10 Belgravia Avenue, Bangor,

Waaslandia

Belgium:- Antwerpen; Merksem; Aalst Mechelen: Turnhout: St-Niklaas

Wigan/West Lancs Amiga User Group Telephone: Simon; 01257 402201 or Ralph; 01695 623865 WWW: www.warp.co.uk/~ssamiga Meeting Places:St Thomas the Martyr

Lancs Address: 79 Woodnook Road, Appley

Alpha Software http://www.users.globalnet.co.uk/ --gazy/ Meeting times: 8 - 9pm. Places: IRC #AmIRC GalaxyNet

Convergence International

Places: #converge (IRCnet) Address: 49 St. Gilberts Road, Bourne, Lincs, United Kingdom

Amiga Club Genk (ACG)

Address: Weg Naar Zwartberg 248 B-3660 OPGLABBEEK, BELGIUM Relax ITC imail: shandor1@polbox.com lelephone: +48-91-357184

National Capital Amiga User Group

Amiga World Special Interest Group

Mutual Amiga Computer Enthusiast

Kickstart, Surrey Amiga User Group

Canberra Amiga Users Society Inc.

Address: Canberra Amiga Users Society PO Box 596, Canberra ACT, 2601, XCAD User

Telephone: 01662 250320 (after 6pm) Meeting Times/Places: TBA Address: 11 Lammy Drive, Omagh, Co Tyrone RT78 6.IR ICPUG SE Computer Club

Colchester Amiga Forum

Deal Amiga Club Meeting times: 7pm Fridays.
Places: St John Ambulance Hall, Mill Hill,

Amiga Service Charleroi, Belgium Location: Charleroi, Belgium Contact: Hoet Raphael Telephone: 003271 458 244 (9am-6pm) Meeting times/places: TBA Address: Rue Du Nord 93, 6180 Extreme Coders

details Address: 1st Floor, 145 Upperthorpe Rd, Upperthorpe, Sheffield, S6 3EB Stoke Amiga User Group Location: Stoke on Irent, Statts
Contact: Paul Shelley
Telephone: 01782 833 219
Telephone: 01782 833 219
Places: Jester Public House, Biddulph Rd
Address: 19 Houldsworth Drive, Fegg
Hayes, Stoke on Trent, Staffs. ST6 61G

Amiga Falcons Location: Malmo, Sweden Contact: Carl-Johan Rudne

Finnish Amiga Users Group Contact: Janne Siren AWW: http://batman.ivtol.fi/--saku/

Amiga Computer Enthusiasts of

Elkhart, Indiana

Photogenics & ImageFX Users Contact: Spencer Telephone: 01375 644614 (9am-9pm)

Praces: 20728 Hampton Woods Dr., Elkhart, IN 46514 Address: 60300 Pembrook Lane, Elkhart, IN 46517-9167. USA

No Specific Name

Contact: Richard Chapman Telephone: 0181 998 8599 5pm-8pm week, all day at weekends

AmyTech Amiga Users Group Location: Dayton Area, Ohio. USA Contact: John Feigleson Telephone: (937)667-9541 After 6pm EST

Places: Huber Heights Library Address: Amylech, P.O. Box 292684 Kettering, OH. 45429-0684 South West Amiga Group ocation: South West England Contact: Andy Mills

Tuggerah Lakes Computer Users Group Location: Central Coast, NSW Australia

7.00pm Address: PO Box 659, Toukley, NSW.

Tasmanian Commodore Users Association Inc. Contact: Eric Fillisch
Telephone: (018) 120 787
Meeting times: 7:30-9:30pm, 3rd
Wednesday of the month

Address: GPO Box 673, Hobart GPO TAS 7001 University Place Commodore Home Users Group Tacoma Washington USA

Meeting times: 4th Thursday evening of Tacoma, WA Address: PO Box 11191, Tacoma, WA 98411-0191, USA

RAVA. Telephone: Wanna call international? Ask me for my number.

Location: Perth, Western Australia Contact: Arthur Rutland Telephone: 08 93541717 Meeting times/places: TBA Address: Peter Luckhurst laces: Anywhere ddress: Ortabahar sok. No:1 Hayat apt. ontact: Mark Vine Telephone: (02)46311801 After 7pm WWW: None yet Meeting times: 7pm-10pm 2nd & 4th /pm Places: Curtin University Address: 31 Chaffers St, Morley Western Australia, 6062 Commodore Computer User Group Queensland 2260 Designs Location: Brisbane, Australia Contact: Ronny Blake Telephone: (07)32871790 Amiga Computer Group Location: Umeå, Sweden Contact: Martin Sahlón Telephone: +46-(0)90-24816 (24 hrs) http://www.users.zetnet.co.uk/korhonen http://www.powerup.com.au/- rastlin Meeting times:1st Tues of month, 7-spm 6 2nd Sun of month 12pm to 4pm Places:St Laurence's College. 82 Stephens Rd, S Brisbane, Qld. WWW. http://www.aniiga-eg.se Meeting times: Tuesdays 19:00 Places: Kafé Station, Umeä Address: Skolgstan 14, SE-903 22 UMEÄ, Computer club Aktief Meeting times: Sat-Sun 8pm Places: irc.pureamiga.co.uk #E2260 Location: Lelystad, the Netherlands Contact: Ji Yong Dikhuis Telephone: +31(0)(320 241741 (not after 13:00 CET) Club De Usuarios Amiga Zaragoza ocation: Zaragoza, Spontact: Carlos Iranzo Huddersfield Amiga Users Address: 3 Conoble Court, Eagleby, Gold Coast, Queensland, 4207. Aust ocation: Huddersfield, W Yorks Contact: Geoff Milnes Contact: Canos iranzo Email: cuaz@arrakis.es or ib/308295@public.ibercaja.es Ayrshire Amiga Society hyrshire Amiga Society Location: Invine, Ayrshire, Scotland Contact: Maitland or Dale Telephone: 01292 267959 or 01294 Telephone: 01484 543534 WWW: http://www.geemil.demon.co.uk Meeting times: 7.30pm onwards Places: Commercial Inn, Market 23:00 Places: Buurthuis de Krakeling (same as Meeting times: 5-8 pm Thursdays, 10:30am-2:30pm Sundays Places: Alferez Rojas 14, 50010 Zeragoza St.Paddock Huddersfield. St.Paddock Huddersfield. Address: 6 Ochrewell Avenue, Deighton, Huddersfield, W Yorks, Meeting times: Wednesdays Places: Annick Community Centre Address: Apdo. 246, 50001 Zaragoza. itad. The Netl Backwoods BBS Highland Amiga User Group Address: 49 Belmont Road, Ayr Scotland, KA7 2PE Medway & Maidstone Amiga Collective Highland Amiga User Group Location: Highlands. Scotland Contact: Tommy MacDonald Telephone: 01687 404757 Anytime WWW: http://azone.prohosting.com Meeting Times/Places: TBA Address: 7 County Cottages, Piperhill, NAIRN. Scotland. IV12 5SE Contact: Lewis Mackenzie elephone: +44 |0|1463 871676, 24Hrz. Amiga Collective Location: Medway & Maidstone Contact: David Prudence Telephone: 0961 809468 Meeting times/places: TBA (phone for West London Computer Club Telephone: 0181-932-1856
Meeting times: 1st and 3rd Tues of month
Places: Duke Of York Public House
Address: 19 Harlech Tower, Park Rd East,
Acton, London, W3 8TZ SEAL (South Essex Amiga Link) ocation: South Essex ontact: Mick Sutton (sicky) retails) Address: 34, Norman Rd, Snodland, Kent Team Amiga Location: Worldwide Telephone: 01268 761429 before 9pm WWW: http://welcome.to/seal SOGA - Si Otro Grupo Amiga Contact: Gary Peake Telephone: 1 281 350 2194 ocation: Manresa-Torrelavega-Navarra **Dublin Amiga Users Telephone** Helpline Send this form to: User Groups; CU Amiga, 37-39 Milharbour, Isle of Dogs, London, E14 9TZ. Alternatively, fax it to: 0171 972 6755, or use the online version of the form which can be accessed from our website at: www.cu.amiga.co.uk This service is completely free of charge. General Location: Group name: Tel: Email: Postal Address:_ Web site: Contact name: Preferred contact method.(please tick) Meeting Times/Places: E-mail Phone Post

Location: Dublin, Ireland

Virus Help Team - Norway

ontact: Luke Stowe elephone: 0966 467596 (after 10am)

WW. None yet
Meeting times: 8pm-11pm
Paces: Earlsdon Methodist Church
Address: 9 Trossachs Rd,
Mount Nod, Coventry,

CWCCC

Amigart

cation: Istanbul

r

in

Group

Contact: Eddie McGrane Telephone: +353-01-6235903

http://www.ireland.amiga.org/helpline.ht

Meeting times: Anytime (24 hrs.) Address: 27 St. Finians Green, Lucan, Co.

Central Arkansas Amiga Users Group ocation: Little Rock, Arkansas Contact: Tim Grooms

WWW: http://www.concentric.net/c

Stoneybridge BBS Dorset LIK

asug.html Meeting Times/Piaces: Monthly TBA Address: 14 Hickory Lane, Maumelle, AR 72113, USA

Telephone: 01202 679158 (10:30pm-6am GMT)

Amiga User Group of Western Australia

Address: 50 Junction Rd. Harnworthy

Meeting times: Daily Places: All Nets and IRC Address: 19723 Teller Blvd Spring, Texas USA 77398

ocation: Galesburg, IL. USA ontact: Mitch Durdle

Address: Knox Computer Club 1003 East Fifth Ave.

Location: Columbia Missour Contact: Terry Booher Telephone: (573) 817 2948

Meeting times: 7pm 2nd tues of month

Address: 15A West Phylis Avenue Columbia MO, 65202

(SWAGS) Location: Campbelltown, Sydney,

outh West Amiga Group - Sydney

MAGA

ZINE

Meeting times: First Tuesday of Month 7pm Places: 696 N Kellogg Galesburg, IL

Knox Computer Club

AmigaTCS

Telephone: 942 888 248

Location: East Cornwal Contact: Nick

Address: Croft Cottage

Telephone: (01582) 606179

WWW: www.boghole.demon.co.uk/pie/ Meeting times: 10:30pm - 7am (Call between the specified hours only, and

Contact: Peter Luckhurst WWW: http://www.geocities.com/holly-wood/7440

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11 Commercial Programs within NetConnect v2!

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. MIME Prefs - Central MIME prefs interface means that you only need to setup file types once with on nice interface! This saves masses of time and effort. (especially for beginners) Programs are now keyfile based (can be used with any TCP stack - Miami etc) allows you to create multiple dock bars with point and click ease - just drag the icons you

have created into the icon bar! NetConnect v2 is pre-setup with its own icon bar for ease of use NetConnect v2 CD icon

NetConnect v2 Upgrade from v1 >=

STFax Professional is new commercial fax and voice mail program which enables you to use your as a digital answer machine, send and receive faxes from most Arriga programs and setup a mini-BBS. home! 'Press one to leave a message for Mike or press two to leave a message for Sus'. STFax is also ideal for the small business owner: setup a fax on demand service (so customers can receive information about your products 24 hours a day), advanced message box system for the employee's, log callers via aller-ID, control other programs etc. New v3.3 offers you even more powerful voice features, including:

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this), a superb speakerphone, conferencing feature, volume slider, easy to

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DOCUMENTATION

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DELIVERY CHARGES

understand LED's and non-technical, easy to read documentation. The PACE is currently the best 55K modern you can buy, virtually winning every single modern roundup in the PC, Internet and Mac press. All PACE 56K moderns are now v90 ship the agreed standard for 56K connectivity. Why not treat yourself to the brand new PACE

The "Solo" be used standalone from your Amiga. Want to go on holiday but need to receive fax oice messages, but don't want to leave your Amiga running? The 'Solo' is the answer. Dese External 56K Modem Georg 'Solo' 56K Modem

UK Caller ID (unique to PACE moderna) 10 LEID's for full status monitoring Analogue Simultaneous voice and data (A.S.V.D.) Speakerphone for hands-free operation

minutes of speech or 30 pages of fisses. "Tollow Me" allows the "Solo" to notify your mobile phone when you receive new ressages! Group 3, Class 1 and Class 2 FAX (14.4) 2 socials for flash memory expansion modules. Dynalink 33.6K External Voice/Fax/Data Modern

Dynatick 56K External Voice/Fax/Data Modem PACE 56K External Voice/Fax/Data Modern PACE 'Solo' 56K External Voice/Fax/Data Modern

Stored messages accompanied by time, date a

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Various money saving packs are available. These are all based on the Dynalink 56K modern Parks hased on the 33 6K or PACE 56K or PACE 'Solo' 56K modern available.

PK01 56K Modem & STFax C 00 05 £119.95 PK02 56K Modem & NetConnect PK03 56K Modem & NetConnect & STFax C120 05 PK04 56K Modem & NetConnect & Hypercom1 & STFax £164.95

PK05 56K Modem & NetConnect & Hypercom3Z & STFax £189.95 DEDUCT £20 for a Dynalink 33.6K Modern (instead of the Dynalink 56k ADD £40 for a PACE 56K Modern (instead of the Dynalink 56K) ADD £100 for a PACE 'Solo' 56K Modem (instead of the Dynalink 56K) All packs come with one month free connection to Demon Internet and/or UK Online

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This month sees our new-look, Reviews Index update, and we say a tearful 'au-revoir' to the Scala tutorial (sniff).

Digital Art

Andrew Korn with Part 2 of this art and illustration tutorial. Here he tells us a bit about image conversion.

C Programming

Jason Hulance gives you all the programming knowledge you can eat with fact after fact on; ListViews, GadToolsSetFunction()...

Emulation Jason Compton attempts to get to grips with some of the obtacles

of PC and Mac emulation.

Surf's Up

Neil Bothwick on the Newsgroup/website reactions to the World of Amiga bombshell. Net God waxes lyrical too

Surf of the Month Cyberspace... the final frontier. Captain Bothwick beams himself up

and around some interesting sites.

Wired World File Transfer Protocol; if this means absolutely zilch to you then it's

time you caught up with this regular feature.

Scala MM300

you can get a lot more use out of Scala. Reviews Index

This months Index takes on a new look, with the addition of some

'hot' products recommended by the one and only CU Amiga.

Q&A

Got a question on Amiga related topics? We have all the answers here. Well almost all.

A to Z

John Kennedy shows off his newly acquired skill - the alphabet with another set of Amiga things, starting with 'L' this month.

Techno Tragedies

Is it a bird? Is it a plane? Is it a car? Is it a motorbike? No it's a metamorphic games console - or at least it was.





Back Issues

e! All is not lost though, as you can probably find the

100 **Backchat**

stion, criticism, suggestions. Here's a chance to get your name

103 Subscriptions

out subscribtion to CU Amiga, the UK's best selling Amiga

104 **Points of View**

With soap boxes underfoot, CU Amiga staff and contributors let the world know just what



odification and including a control of the control

crisp output, but even in mose rarefield helights, the end product still looks more like a holiday snap that an Ansel Adams photographic masterpiece. With the cheaper cameras the story is even tougher – poor lens quality, blurry images. Beyond hope? Not if you cheat.

Cheat!

Cheating is a great tradition in photography. The physical nature of traditional photography in processes is just safing to be important to the processes of the physical nature of traditional photography in the processes of the

While the world of holiday snapshots and magazine covers has gone largely colour, black and white is still very widely used in photography. Many photographers prefer black and white because they feel it gives a more

real stic image than colour. This sounds pretty screwy when you think about it, but there is a solid logic behind this.

With a black and white image,

the information which the eve receives is purely tonal. The eve is distracted by colour, as we use it to help identify objects. One of the main purposes behind photography is to show something in a way we do not normally see it. If you see a photograph of the sky in colour, your eye sees a lot of blue and your brain uses that as a clue to identify what you are seeing. This aspect of our neuro-optical development is a useful evolutionary trait, as it allowed primitive man to take to his heels when he saw a yellow and white striped sabre tooth tiger rather

Con your brain

Showing something in tone withour colour makes i harder for ourbrain to make a guick identification, and therefore lets us study the image undistrubed and hopefully learn something more about graphic molyements was the f8d group, who concentrated on presenting mundane objects in a way that would encourage the viewer to see them as abstract objects as worthy of attention as any work of air, they found black and The first two projects show how

you can take a photograph and manipulate it by converting it to black and white, gaining maximum impact through home. The third project is a bit more drastic. An interesting final image does not have to image at all — the heavy duty manupulation available through image processing software makes it possible to transform an image utterly. For similar reasons to those outlined above for black and white, some of the most effective colour utilise false colours. Methods wittles false colours.

Andrew Korn

This month Andrew Korn tries to make something a little out of the ordinary from a digital camera.



Greyscale conversion

This first example shows how to the key is not to trust what a grey scale converter gives you, it's bound to be less interesting than it could be.

Picture 1: The original Image, a 320 by 240 pixel digital photograph of a hand. Pretty dull at the moment, harsh colours and grainy.

vert the image to greyscale for you, but a much better final image can be achieved. The greyscale may be an accurate tonal representation of the original, but it doesn't look as good as it could.





Ficture 5: The final result!









There is of course a lot you can do by getting away from the original colours of an image too. The following project was an attempt to use false colours to turn the face of my brother's cat into something altogether less world!y.

leture 10: Colling on the neuror of Image EV2 0



et, while retaining the shapes and structures

simplest of colour abstractions, negative. The Solarise effect causes a pseudo negative based on rolling rather than flipping the colour range. By repeatedly using the negative effect followed by a solarise, the colours move fur-

Picture 12: Next, a little textural abstraction! The flowing lines of colour lent themselves to lines of texture, too. ImageFX's oil paint effect was used at a relatively low level, enough to roughen out the image and convert the

image and convert the impression of flowing cat hairs to an impression of flowing colours



re 13: The final result, and ary cat – like any more!



The Software

Image Studio:

gain-bucket image processing package on o CD this month in the magazine/DigitalART drawer. The full version with manual can be bought from LH Publishing, Telephone +44 (0)1908 370230

ImageFX3.0:

This is the program I would recommend to anyone taking Image processing really serious IV. Call Wizard developments +44 (0)181 303 1800. Price is £179.99. There are also some very nice upgrade offers if you have an older version.







n the next example, we modify the colour of an image before turning it into greyscale. While this sound

cture 6: The original picture. Cloudrappes are a common subject but newly look so good in the final limps ontographs revie, because the funitariance of a bright sky luck puraling to Black and whele you can demonstrate the funitariance of a bright sky luck puraling to Black and whele you can demonstrate through tonal character. Affect Stieglitz used black and while fifting for photographing ouds for his select "chaptered", sating that the back and white representations of the chaotic shapes of dock was a very of achieving an artistic abstraction which allowed a very simple emotional connection with

ture 7: A cimple grouped conversion clightly twosked for an improved tonal range

Picture 8: At an elementary level, a cloudscape contains blue skies and white clouds. If you darken all the blue, you can increase the contrast without removing any of the detail or total range in the whitelytery highlights. This image is the result of tweaking the colours with an eye for the tonal range rather than the colours.

Picture 9: The re-coloured image is converted to greyscale, giving an end result with rather more subtlety and character than the original greyscale image. The scene is moodier without overwhelming the detail, and the contrast is higher without badly affecting the dynamic range.



Amiga C Programming

This month your friendly neighbourhood programmer, Jason Hulance, has a little dabble with GadTools ListViews, and tinkers around with SetFunction().



his month wite going to draw a line unless a line unless our HelloWorld paint program and call it at day. It's helped us cover an awful lot of topics, from basic windows right through to fractile and creating plave tasks, and the second of the second paint of the se

GadTools revisited

By now the use of GadTools should be fairly familiar. In fact, we've borrowed most of the first program, "setfl. 0.", from the first GadTools example constructed many months ago. However, this time were creating a ListView. gadget, which is used to display a (vertically) scorling list of items. The key parts of the code should need no introduction: 1) Open required libraries. 2) Get visual

Setup our first gadget */newgad.ng TextAttr

newgad.ng_TopEdge = MYGAD_TOP +

= MYGAD_ID:newgad.ng Flags

vinfo:newgad.ng_LeftEdge = MYGAD_LEFT + offleft;

newgad.ng_GadgetText = MYGAD_TEXT; newgad.ng_GadgetID

CreateGadget (LISTVIEW_KIND, gad, &newgad, TAG_DONE))

Example 1

information for GadTools. 3) Start a GadTools gadget list. 4) Create a gadget and add it to the list. 5) Repeat 4) as necessary, 6) Open window and refresh gadgets. 7) close gadget is clicked. 8) Cleanup: close window, free gadgets, close libraries. The interesting new bit is the creation of a ListView gadget (see the extract in Example 1). For the moment we've (safely) omitted the most important tag (GTLV Labels), so also slipped in a new way of specifying the window width and WA InnerWidth and

WA InnerHeight. These are like the normal ways of doing it, except you give the internal width and height of the window (i.e., the size of the bit inside the borders). So, the actual window will be a bit bigger than the dimensions you give since it will have a

Exec lists

data held in an Exec list. This is something we've not really met

= MYGAD_HEIGHT;

= 0:/* Now create it

before, which is a little strange because it's one of the most Operating System, Almost every-Exec list or other. From the list of open windows to the list of messages waiting at a message port. but more on that some other day... Back to the ListView: it displays the In Name field of the Node elements in the List. So we need to create a new Node for played, and add each one to a changes needed to make the the list before it's used. This is done by the function NewList() which comes from amiga.lib. A way before it can be used as an Exec list. A node (i.e., a "struct Node") can be added to this list using AddHead() to add it to the tions are very fast, since the Exec easy to access the last element of the list as it is to access the first). So, what are we going to add to naughty, tinkering code comes in. function, a bit like the wonderful SnoopDOS program.

Patching libraries The Amiga OS provides a function

for replacing individual library functions; SetFunction(). This is extremely dangerous to use, and even the most careful "hacking" can cause serious crashes, so this is the point where you're advised to proceed at your own risk. In

any case, make sure you've saved any important work before you start playing with the next few examples. The second example, 'setf1.c', uses SetFunction() directly, it's nout generally possiways: 1) it's not generally possi-

Example 2

mylist; NewList (&mylist);/
* Now create it and add
it to our list */if(list-

gad = CreateGadget(LISTVIEW_KIN D, listgad, śnewgad, GTLV_Labels, śmyliat, TAG_DONE)) createWindow(glist);else printf("Error: could not create gadget(s)\n");

ble to use ordinary C functions to replace library functions, and 2) it's not 100% safe to use on the disks have been constructpretty stable, given suitable conditions. This means that the compil er should not generate code that corrupts significant registers. Using the large (far) data and code model in StormC seems to be OK. SAS/C is probably fairly safe, too. To do this kind of thing ment library function. Most C object files from standard these small examples and keep SetFunction() needs the library base of the library to be patched. together with the offset of the vic

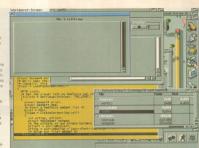
the replacement. The SysBase (which is defined in amiga.lib. so it's declared as "extern" in our source code). The more difficult thing to find. You need to look at the '#pragma' entries in the files in the Include:pragmas directory. For the Include:pragmas/exec pragmas.h. library in order of their offset. The (generally) is the offset, and for is a hexadecimal number (although some compilers might use pragmas that specify offsets as decimal numbers). In fact, the value we need to supply to SetFunction() is negative, i.e., "-0x228" in C speak. To be really complete and precise, it is actual ly possible to get most library offsets from amiga.lib. They're the prefix. Unfortunately, not all the particular the one for OpenLibrary() is not present.

Example 3

the real work on (SysBase, LVO_OPENLI-BRARY, (APTR)oldf);

Replacement

OpenLibrary(|SetFunction() is also used to reinstate the original library function. To this end, the result of a call to SetFunction() returns the address of the replaced function, which can be used when you wish to reinstate it or if you want your new function's effect. Example 3 shows nism, much like that used for the multitasking fractal code. Our replacement code for OpenLibrary gadget, which is only valid once



The result of the first program: a ListView

the gadget exists and before it is removed. As other processes and tasks will be running our replacement code we need a way of preventing them doing so at 'bad' times. A semaphore is ideal for meat. We're using some compilerspecific directives again (like

low-level stuff. The register argu- ... ments are the ones that are docuwhen it's called from Assembly The first thing the code does is call the old version of OpenLibrary in as this function!). If it's safe to undate the list, we will then successfully hold the semaphore. It's task or process could be running this code, so we shouldn't use DOS functions (like printf() or any other I/O) or allow the code to fall ObtainSemaphorel)). Our real

addNode() call (see Example 5). Node, and allocates and formats the In Name element. The memo-FreeMeml) is that the size of the it does with FreeMem(). The inter esting call to sprintf() is like the printf() calls we've used before, but the result is stored in the string supplied as the first argument. The various parts mean:"\$%8ix"The address of the as an eight-digit hexadecimal number (with a leading "\$")."% result of FindTask()) is formatted to at least 20-characters and leftjustified. "%s"The supplied library name is used in full. Hopefully,

this ought to explain the careful In Name field.

Exec list

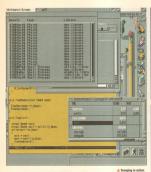
An Exec list is basically a doubly-linked list. In a normal (singly) linked list each element (or Node) in the list has a pointer to the next element, with a NULL meaning the end of the list has been reached. In a doubly-linked list, each Node also has a pointer to the previous element, and NULL is used to mean that the start of the list has been reached.

Updating the

ListView the update to the list and the ListView gadget. Before the list used by the gadget can be altered get. To do this we could attach a we eventually replace it with the nicer way to do this. GadTools the special value "-0", which means "detach the list but don't update the display". So the first

extra functionality is the Example 4

typedef struct Library* (*FUNC) (register _al STRPTR name, register d0 ULONG vers); FUNC oldf; struct Library __saveds newf(register __al STRPTR name, ready to be updated */ if(AttemptSemaphore(&ready)) { addNode(name, result);



call to GT. SetGadgeAftrs) destences he list incley, then the new node can safely be added to the front of the list. Finally, the updated list can be reattached using GT. SetGadgeAftrst). Once the Last/iew gadget is no longer needed, the list of nodes must be properly deallocated. Example of walk the list and from the memory used by the nodes. Notice the great care taken to copy the ln. Succe pointer before a Node is deallocated.

Does it crash?

There are a number of reasons why the patching examples might cause your machine to crash. One of these might be various other on your machine. Another (more likely) reason is the interaction with the tasks and processes that call the replacement code (as statwritten in pure Assembly). The third example, "setf2.c", tries to add a degree of safety to this patching, by using one of the Safer SetFunction Patching' libraries, namely the patch library by Stefan Fuchs. An archive should be on the disks, or else it's Offset: Every Amiga shared library has a table of vectors which call the library's functions. This means that (externally) the entry points for library functions remain the same, since they use this static table. The actual implementation of the library and the real location of the functions are free to change. This makes it easy for new versions of libraries.

to replace old ones trans-

parently to the programs

enables SetFunction() to do

that use them. It also

its naughty stuff.

LVO is a 'Library Vector

LVOAn

available from Aminet as utilifitis/PatchLibV6.lins. If this last example isn't more stable on your machine, try out the supplied examples in the PatchLib archive. If they don't work either, it's more likely that it's your setup that's the problem. Next month we'll look at some more interesting bits of the Amisia Constitution States.

you then!

Example 5

continuous out additions (chee' name, struct Library* lib) (struct hode) node alloctwe (sizuotistruct hode) .

Node node alloctwe (sizuotistruct hode) .

Tature trank case structura (hode) .

**Case **Cas

Example 6



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Emulation



Serious PC and Mac emulation throws up a number of sticky problems once you've got the basics sorted. A decent CPU, compatible drives and RAM for example...

can hear your first reaction to this article now. "Oh, no! Not another "upgrade" article! "Vell. yes and no, but mostly no. See, if you're going to get serious about serious Mac or PC emulation, there's a certain set of tools that will make your life much easier. Just getting the emulation and openiting system to the properties of the control of the

screen data in memory for extra speed, that can eat up quite a chunk as well.

Back in the days when memory actually represented a signifirection of the signification of the signification of the signification. The signification of the signification of the significant of the signi functional level – add at least another 8 if you want to clear 32MB on the Mac partition so you

acceled on the rease particular No via On the PC. Hings are a little tricker, Unlike the Mac. you don't usually get the lawny of just mapping all the memory you'd like list For PC-Task, this is possible in theory, but it makes for very slow emulation, For PC. you hit a 16MIs wall that, in the present was a superior of the property was a

The vay PCTask works makes it very attractive to have as much memory as you can squeeze into the machine. The nemulator uses "dynamic techniques to convert blocks of PC-compatible x86 code into Amiga 880x0 code on the fly. Doing that saves you time in the long run, but the cost is available memory. The more memory you can give PCTask to use for this code conversion, generally the faster your emulation will end up being 30, in generall, the more

memory you can throw at the problem, the

better.
And that doesn't even begin to enter into how much memory you'll want to have handy to do serious emulation. If you stick

based appli-



Something to consider as the technology gets cheaper and cheaper are CD recordables (CDRs). If the amount of data is considerable, burning a CD on a 2X or 4X drive is not necessarily a ridiculous prospect. CDR media continues to drop in price, and at worst, you whatever you needed to transfer from one machine to another. CD rewritables (CDRW) don't have the problem of permanence, but they are substantially more expensive. While not everyone can justify burning a CD whenever a single floppy won't do, the advantage to using a CDR to move data between platforms is that the PC, Mac, and Amiga will all read standard CD encouragement. Keep in mind, however, that under old DOS some restrictions may show up if you don't have very good CD driver software - if you're unsure, it's best to use the



A Emplating modern Macs and PCs requires a let of RAM and brate force from the CPU. A 68060 is a good start.

We all know the AmigaOS is won defully frugal when it comes to memory usage. This was terrific news when memory was many, many times more expensive than it is today. Now, though, even Amiga users benefit from having memory to spare onhand, and it even more handy if you're planning to emulate POs or Macs.

For Mac emulators like Shapeshifter or Fusion, you typically burn at least 4-5MB of RAM, minimum, just launching the things. If you are buffering your handle VM under the MacOS, using VM full-time is a terrible idea, and it's best to stop before you start.

If you stay away from MacOS 8, and don't nu millions of extensions on your Mac partition, you can get away easier, but big applications like Microsoft World and Adobe Photoshop still require several megs of memory just to launch without any projects running. Then you load in a nice big TIFF, and wham, you're out of memory again. For this reason, start considering 32MB of memory in your Anigato be a good of memory in your Anigato be a good



burning those CDs.

▲ DI course most PC and Mac seltware comes on CB new, but you've probably set a CD-RDM drive so that shouldn't be a problem.

cations, having 8 to 16 megs should be very sufficient. If you plan to use Windows 3.1, 8MB is run Win 3.1 in 4MB, but tends to be slow and tough to open many take the serious plunge and try Task 4 16MB (and a lot of patience) is required.

Floppy appendages

From installing the emulator operating system for the first time to getting crucial files over to the right partition to exploring all the suddenly get access to, a floppy drive is indispensible. Of course, we all have them - but by and large. Amiga users still tend to in most Amigas. These just won't

shipped with double-density flopapplications, including slightly older versions of DOS, that you Amiga floppy drive. But it didn't take very long for high density floppies to proliferate on the PC across requires a high-density

For Mac emulation, the situation is even more clear cut. A standard double-density Amiga floppy can't read any double-density Mac disks, period. The format of the Mac

about as custom as one can get - Apple actually rotation depending the head on the disk. Mercifully sense and made

a little software help (like an emuhigh-density floppies like a pro.

Amiga came shipped with a Chinon high-density floppy in the first place. But in general the only people this lucky were certain Amiga 3000 owners and all Amiga 4000 (desktop) owners, along Commodore 4000T users. Barring that it's time to look elsewhere. Some developers have found floppy to function as an Amiga controller, needs the drive to slow those function pretty well as original floppy drive. They can be a little pricey, however. The advantage is that they'll work exactly just with added support for

floppies. The other route to take is a Catweasel. This little device will allow you to plunk almost any PC high-density drive you can find into your Amiga and get access to all sorts of floppies, including high-density PC, Mac, and Amiga. In some cases, you can even make a modification to an Escom A1200 floppy drive and use it. otherwise you'll have to seek out a cheap PC spare parts place and get one. Depending on how much route can actually be cheaper than a dedicated Amiga high-den-

Aside from a CPU card with some extra fast RAM the most useful add-on is a eraphics card, which

Amiga, PC, and Mac high-density

to be desired.

Those silvery things

If you want to use modern PC or Mac software, you'll most likely be wanting more than just the high-density drives, Jaz drives, etc.) work just say, a Zip disk to move a load of take those over to a real PC, or about with the software tools to



A high density Suppy disk drive will definitely make things a let easier

floppy. It hasn't just been Amiga scale a CD-ROM provides, and Having a decent, reliable CD-ROM should read and re-read the documentation with your emulator make it work - you have to delve into the treacherous domain of CONFIG. SYS and

ALITOEXEC BAT, and while you can't "break" anything if you make a mistake, you can get frustratéd in a big hurry if it's not working right. Mac emueither

through the SCSI, that is) or through get up and running.

If you need to move lots of data between your emulation system and either another Amiga or other real PCs or Macs, you have back on that Zip disk. Despite the hassles, if you stick with the old MS-DOS 8+3 filename limit (8 letters in the filename, three in the extension), you can be sure it will at least be readable on all three platforms. Sometimes least common denominators are handy.

When you're emulating, you have two (or more) computers You just have to be a good shepherd and make sure that everyone has what they need to keep happy, and keep you productive Besides, when you're emulating, your investments get spread around between more than one type of computer. That should be enough rationalization for most

people, right? Jason Compton Resources

There's really only one place you need to look for more Macintosh www.emulation.net. for all of the emulators men-



Surf's Up!

Newsgroups and websites have been buzzing since the WOA announcement. Suddenly it seems the Net has acknowldeged the existence of the Amiga...

They received a tremendous

in porting Opera to the Amiga.

it will make a high-quality Amiga

of commonality with Windows 95

following among PC users because

design, in comparison to its massive and often ponderous competitors.

ment work of the PC team, Ramjam

should be able to add Amiga sup-

port for new features more quickly

than the programmers of the other

browsers, who have to do so much of the work themselves.

The planned release date of the

first Amiga version is December 98.

Bootnet, a general computer news

reactions to the announcement of

the new Amiga. Considering that

this is not an Amiga site, so you

site, recently carried out a survey of

Bootnet survey

of its lightweight and efficient

application, and will offer a degree

Ramiam Consultants Ltd.

NetGod speaks

releases and announcements

does make finding intelligent life

web pages, provided it doesn't

I did get what I needed, by going to another company with



en days before the World of Amiga, Amiga Inc stated that they would be making a major show. From that moment the newsberserk. The increase in traffic was incredible. I turned off my Amiga the night before WOA to take it to the show. By the time I got there and got back online on Friday afternoon, there were 475 new postings to comp.sys.amiga.misc. The Team increase in traffic. The discussions spilled over into other newsgroups and mailing lists too. Once the

even busier! Much of the discussion from the Amiga newsgroups appears on the CU Amiga CD each month, and is available from DeiaNews too, but mailing lists have generally been harder to read after the event. Now the Team AMIGA mailing list is availat http://www.thule.no/cgibin/lwgate. The THOR mailing list is



main Amiga browsers appears to of them releasing a major upgrade so far this year. Now there is a new player entering the competition. You may remember the mention of



would expect a somewhat than you would from an Amiga-specific site, the results are both surprising and encouraging. The question was "How do you feel about Gateway resuscitating the Amiga?" and readers had three choices. 69%

There is a God! I want one! is a browser currently available for the PC that is being ported to other Um, Why? platforms by programmers specialis-No ing in each of those platforms. At that time they were trying to gauge the demand for an Amiga version. response and have now decided to go ahead with an Amiga version, to be developed by a UK company,

Does this really mean that two-thirds of PC owners want one of the new Amigas? **Neil Bothwick**



Contacts:

Iwgate Home page

Ramiam Consultants Ltd

http://www.bootnet.com/opinion.html

Deja News http://www.deianews.com

Opera

Development on some of the three

Team Amiga Mailing list http://www.thule.no/cgi-bin/

http://web.wt.net/~gpeake/

http://www.ramiam.u-net.com



Surf of the Month

Once again, fluffy Neil Bothwick - like a duck taking to water - rummages for tit-bits in the sea of information.

uy or sell something, you can't beat classified advertising, and engines to traditional classified ads. Exchange & Mart and Loot are two, well established, classified publicaweb, and it really is-a lot easier to type a request into a search engine than it is to to pore over pages of it's Amiga kit you are looking to buy or sell, you have to look on AmiBench.



nds

69%

23%



Sun, sea, sand and...

turn to sunning yourself on a beach. I've always thought the web was well suited to providing information and promotions for holidays, much better than watching page after page of teletext, only to forget to press Hold when you finally see



very few travel companies taking advantage of it yet. A2B Travel provides a wide ranging travel service, including useful information like

Their site links to Bargain Holidays, who provide the same sort of service in cut price holidays as the teletext advertisers, but in a more accessible way.

I'll name that tune in one The collection of 6000+ CDID files

on this month's CUCD is nothing in comparison with what is available from the CD Database. They stopped making the whole database available for download after it got bigger than 70MBI The database can be used in two ways.

You can search for artist, track or CD names, as you would expect extra feature. If you put a CD in the suitable CD player, it will contact the database to retrieve information on that CD. There are no Amiga players listed on the site, but the relevant freely available, so there's no reason why this couldn't be added to some of the many Amiga CD audio players.

will appeal to music trivia "experts" CD*ID shows a small portion of a the previous competitions too.



Way to go! The Darwin Awards are given,

usually posthumously, to the individual(s) who remove themselves from the gene pool in the most spectacular fashion." There are several sites relating to these awards, but this is

stories relate to someple may find these sites others will find them very guy who attached a solid in a cliff face 125 feet above the road, is now a

The real thing

puter enthusiasts and sci-

number of Star Trek, Star Wars and Babylon 5 web sites. You can't beat the real thing though. NASA have a comprehensive web site providing up to date information on current and future missions, with a large selection of pictures.

Web sites on how to make your own web site have always been popular. The Brain Soup site is basi cally a collection of background textures that could be used for web page or Workbench backdrops, presented in a clear and easy to use way. Jeffrey Zeldman's site provides a wider range of resources. As authoring and, unlike the previous site, it is updated very frequently. **Neil Bothwick**



IIRI e Loot

CDDB

Exchange & Mart Brain Soup Jeffrey Zeldman Bargain Holidays

CD*ID

CU Amiga Online

http://www.loot.co.uk

http://www.exchangeandmart.co.uk http://thunderstorms.org/AmiBench

http://www.skoardy.demon.co.uk/bsoup http://www.zeldman.com

http://www.a2btravel.com http://bargainholidays.com

http://www.cddb.com http://www.bfoot.com/users/barefoot/cdid.html

The Darwin Awards http://www.officialdarwinawards.com http://www.nasa.gov

http://www.cu-amiga.co.uk

Wired World

FTP programs don't have to be all file lists and buttons. FTPMount is so easy to use you could forget it's there.

TP or File Transfer
Protocol, is the standard
way we exchange files
with other computers on
the standard standa

downloaded/ So using filters from the Inferent is a two stips process, you field thereprogrant to download a file and another to actually use it. Wouldn't file be much simpler if the program that used the file could also download if 2 uses thin boy much time and trouble it would plane if you disclorated in the program of the program of the program of the proprise of a web size of your last created straight onto your ISP's web serier.

Aminet on your Workbench?

The good news is that this is possible, and has been for several years, using a little-mentioned program called FTPMgunt. FTPMGunt does just what it says, it mounts a device called FTP on your system, which you can then use to access just about any FTP site from any program, including Workbench.

drawer of this month's cover CD.
There is an installer script, but misqual installation is simply a matter of copying the FTPMount directory to your hard drive, moving the contents of the DOSDrivers drawer to SYS:Storage/DOSDrivers and assigning FTPMount Dir. to the FTPMount directory.

Once you've installed FTPMoun go online, open a shell and type

ARGUE		Flack		
FROM WILLIAM	miga WebCitor			×
TO FTP OUWWW				
PACKER				
BEFORE [
ALL NO	QUET			
FORCE	CLONE		OUR	*
NOWAIT	NOCOMMEN	E VO		
	BLEFFER			

and you will see the list of recent yelloads to Armond displayed on your Workbanch. This is a start, but FTPMounts is capable of much more than this, leated of typing in the fill address of a site and the path to the directiyou need, you can set up an aliato do it all flow your in FTPMountal Hosts you will fill of a number of drawers and icons, each drawer represents a site for host. With cofiguration information held in the lean's toollives. Select one of the

drawers from Workbench, make a

FTP:uk,aminet.net/aminet/RECENT

copy and rename it to "Aminet". Then select information from the leader metter of Workfarch and edit the follows or Why look like the screeningsts. Now FTP-Aminet will take you designit to the hain direct could see also provide the could be the provided of the could be the provided of the provided of the provided of the workfarch and select. Twee the Workfarch and select. Twee the Workfarch and select. Twee the provided of provided provided

Maintaining a web site FTPMount is not restricted to sites that accept anonymous logins, you

This is the OBI for FBeck, yes must have NOCOMMENT set when warding with FPMWest as it doesn't handle file comments. The ALI option is ticked to make it act an all files in subdirectories. The SUI option is progress report.

Here's the Fillirer GUL The ALL ogtion is ticked to make it act on all files in subdirectories.

The GUI option gives a progress

passion of potential services, such as your verb explore. The USER and IPASSIVORIB uphapses allow you foliog into any slife bits you have permission to access Their is allow a low PASSACRIDENTPT tooltype in except permission to access their is allow and permission that it is you still explore accurate that it is you still explore their interest accurate that is a saving the password as polinities, that anyone can road, but it may be visite to keep a copy of the password somewhere safe in case you togget it.

Once a web site gets bigger that a few files in a single directory, keeping it updated from the master copy on your hard drive can become a major-chore. FTPMount makes it much easier, especially if combined with other programs. Simply typing Copy Morth McMehster 1997.

FTP-MyWebSite ALL
will copy the entire contents of
your yeb site from your hard drive
to you's ISP's web server, provided
you have created a suitable host for
FTPMount, Updating it takes a little
more work, but not much.
There is a neat little backup gro-

There is a neat little backup program called FBack, accompanied by FMirrot, that makes maintenance of even the most complex of web sites a doddle. FBack works by checking the archive bits of all the files in it's source path, and copying any files that don't have the archive bit of the the destination path, setting the archive bit of the source file in the process. Archive bits are a feature of AmigaDOS that allow software to keep track of flies that have been modified, you can see them in the output of the List command, or in most directory utilities. Whenever you modify a flie, it's archive bit is cleared, sof your backup program knows it has been changed since the last backup, without needing soknow the date of that backup. Soknow the date of that backup.

knows it has been changed since the last backup, without needing to know the date of that backup. So FBack will simply copy all files that have been modified since it was last run. By setting up a host in FTPMount for your website, and

Web cameras

There are many other things you can do with FTPMount. If you looked at CU Amiga Online during the World of Amiga, you may have seen our webcam. This was based on a simple script that took a directory of photos taken with a digital camera and uploaded them to the web site at regular intervals, using FTPMount. You could just as easily set up a live webcam using either a video camera with frame grabber or a digital camera. Set it up to grab a picture at regular intervals FTP:MyWebSite/webcam.jpg.

Cancel



Here you can see the basic FTPMount setup for the UK Aminet site. You can set up additional basts for A This is FTPMount set up to access a web site. Note the use of the encrypted passward to prevent anyone reading the password from the file and momentum it.

or a large commercial site.

Clear out the deadwood

When you've been running a web site for a while, you find you acculonger used, such as old images.

FTPMount and the destination to your local copy of your web site. So you first run FBack to copy across any updated files, and then run EMirror to remove any outdated files. The screen grabs show the GUIs used for each program, but they can also be run from the shell. or a script. All you need is a two line FBack FROM Work: MwWebSite/

TO FTP: MyWebSite/ ALL NOCOM-FTP:MyWebSite/ TO Work: MyWebSite/ ALL

Call it UpdateWWW and either type it in a shell or attach it to a Dock button. You can now update your whole web site with a single command. One word of warning. some web servers also store system configuration files within your web

Uploading web pages pages to your homepage space it available from the day you open

name and a password. The login the format of the upload address varies according to your ISP. These are the addresses for several UK

Wirenet: www.yourhostname.unet.com (using your own hostname) Demon:

homepages.demon.co.uk Enterprise: homepages.enterprise.net Netcom: www.netcomuk.co.uk

The Opus alternative Users of Directory Opus have a facility similar to FTPMount built in. OpusFTP lets you display the contents of an FTP site in a lister and perform most of the operations you would on a lister containing a local directoin a shell, which is why I used FTPMount for the WOAcam. but it makes up for this with many other features not present in FTPMount. Any existing user of DOpus Magellan should have a good look at the features available with OpusFTP. some of which are available on very few FTP programs on any

UK Online: web.ukonline.co.uk Globalnet: www.users.global-

Last Changed: 26-Nov-97 17:52:59 Location: [Work:Usn/FTPMount/Hosts/CUWWW.info

net.co.uk (copy files to public html Zetnet www.users.zetnet.co.uk Note that even though some of

Idol Types:

these are www. addresses, you still to be careful with the spelling of link and file names. If you have a page called AllAboutMyDog.html and a

link of ca href="allaboutmydog.html"> the link will work fine when testing it on your Amiga, but will fail when uploaded to a Unix server, since

these are considered to be two case everywhere to avoid the embarrassment of people complaining about broken links and images that don't display. Neil Bothwick

USER-cu-amiga PASSWORDCRYPT-2/MB/^>.M*A/46[Y.A:]5%/

(cucd@wirenet.co.uk)

On the CD

FTPMount - including the recent update FBack - with FMirror Argue - needed by FBackGUI WOAcam.rexx - the script used at World of Amiga

Size Date

changelog.html 13722 Wednesday 18:32:80p ----rued 18:32:88p ----rw-d home.html 5754 98-May-98 39:00p ----rued 23:88p ---- rw-d index.html 5754 88-Hay-98 7:39:00p ----rwed 11-May-98 3:42:00p ----rw-d 5604 08-May-98 39:00p ----rwed woacam, 100 18:54:88p ---- rw-d

A Here is another way to access remote servers from your Workheach. This is the root of the CU Amiga web site shown in a standard Directory Open lister. Note the stats directory and http-pid file. These are system information, put there by the server. If your server does this, he careful that you don't let FMirror delete them

Scala MM300 👸



With the use of variables you can get a whole lot more out of Scala than just simple presentation sequences. John Kennedy brings you the sixth and final installment of this tutorial.

language. It can display things on-screen, react to input from the user, and it can even per-

form calculations month. Adding some degree of interesting. If, like me, you happen displays then you can use these techniques to create rolling demos - making them much more interesting and extending their use-

What is a variable?

A variable is a location in memory which can be used to store a value. as any programmer will tell you. Scala can use its variables to keep track of things, such as number of times a page has been displayed.

Scala can test the value currently jumping to a specific page in the also display the contents of the variable as part of a page: which greatly

First of all, we need to see where order to see any action which might edit the layout screen slightly to make them visible. We did a similar thing to make it possible to add sounds to pages.

All you need to is click on the tion button until you get to shuffle top, so that when you return to the



A Before you can use variables, you'll have to make them visible from the System meas. When you return to the layest window, and click in the Variable celsons for any page, yee'll open up the Variable windoor. like this.

All variable operations are entered into this little

From this window here you can do three main things:

1. You can define the name and it in the Set box. You can use a wide selection of names, so try and pick something which will help you remember what it does. "Age" is more helpful than "X" for example. If this is the first time the variable is being used, it's a good idea to set it to an initial value. Notice the digit 1 in the box. After you enter your first variable, you can click on the little The number helps you keep track. You can also change an existing vari-

2. You can act on the value of a variable, by entering a statement in test if the age is over 21, using a command such as "age > 21". You can also test for "less than", and "equals to". Again, it's possible to enter multiple IF statements using the little arrows which appear.

3. Finally, you can do something if the condition defined above is met. You can't do anything dramatic to. By carefully defining your pages,

Example project: you can therefore Countdown Timer act in totally dif-

Many videos and demos start with a countdown timer, so let's create one to start our Scala script with. Remember, once you've saved a script you can still load it back into another project and use it again. Building up a library of useful scripts

is the best way to tackle any large Scala project. Let's say we want our countdown script to start at 10, and

countdown to 1. The easiest way to create a countdown without scripts is to create a page for each number. This is a little tedious to do, and if you wanted to countdown from 100 instead, it gets silly A better way is to use a variable to keep track of the current count value. Here's how:

1. Define a page which does nothing but contain a variable event. box to create a variable called "count" which we will give the value 10. This is the first value which we will display. Switch off any page delay. V



which will display the variable. I've used a large font here, the variable name starts with a "!" mark. In fact, the variable name is so big it's gone off the side of the page. This doesn't matter. Set the page delay to one second. V



how we can use variables to create some scripts which appear to be Different types

ferent ways

value of the

The variables you define in Scala can store two different types of data: text (known as (known as integer variables). You don't have to define them in a special way. Scala will work out the type by looking at the first value you set it to.

When it comes to displaying the contents of variables, nothing could be simpler. All you need to do is define your text appearing on the screen as normal, but precede the variable name with an exclamation mark. For example, if you have a variable called "name", then when you include the line "My name is: Iname" on a page, Scala will substitute the name when the script is run.

My Name is !name

A This is what the screen looks like when you are designing it...

My Name is John A but when the script is executed, the variable

contents are included instead.

3. Now for the clever part. On the third page we define a new variable event. We use all three parts, in variable, then we test if it is still back to the display page. Again, the

4. The last page isn't needed.

it's simply to demonstrate that the

loop has finished. If you want your exotic, why not include a 25 frame frames? Because that will take a

IFTOFF

get the first question page just right. the others. Here's the layout of the question page. Notice how right away we use one of the variables in the top left of the screen. Y

that there is no entry in the Variables player won't get any points. If you were being harsh, you might want

tion to zero, it has one added to it

tion page for each question in your page, and then the Copy button to to reflect the correct answer. Y



8. Finally we get to the page tells the user their You could even use Scala age, but I'll leave that as John Kennedy

tion page, I the right order. The

screen. Y

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is needed to finish

You scored: !Score out of !Question

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the buttons is where we'll build-in the logic which checks for the right define an object as a button from a previous Scala tutorial.

set to Next, so the page automati-

one to the score. The Goto: box is cally moves on. V

which leads to the wrong answer.

Example project:

As Scala can keep track of numbers using variables, it can also keep track of things like scores; which means it's possible to use it to write simple games. With a little planning and ingenuity you could use Scala to create an adventure game if you

1. Once again, we start our script by creating and initialising a variable. In fact, this time we'll use "Question" (to keep track of the current question) and "Score" (to keep

tions. The best way to do this is to

You can see it's identical, except \(\neg{r}\)

executed before the page is displayed:

And finally...

That concludes our Scala

AMIGA. For now address Scala queries to the usual Q&A address.

Reviews Index

ere it is: the long-awaited, revamped Reviews Index. The index now contains a summary of product reviews from only the previous four issues of CU, sorted by issue and then alphabetically. Hopefully, you will find this a bit easier to use. New to this page is the CU Editorial team's list of recommended products. If you don't own any otherse, do yourself a favour and

buy one immediately.
As usual, if you have any comments or suggestions about this page, please





		64
	Hot Products	hn
	Title	Comment
	Aminet Sets	The must-have shareware archive.
	Draw Studio	Amiga's best structured art/illustration package.
	Elastic Dreams	Swirly picture manipulation hi-jinks.
	Epson Stylus Photo	For photo-realistic hardcopy.
	Genetic Species	A damn fine game.
	ImageFX 3.0	THE professional image processing software.
	Miami 3.0	Makes jacking into the 'net so easy.
	OctaMED SoundStudio	What? Still using Octamed 6? Get this now!
	Opus Magellan	We love this Workbench replacement-OS3.5?
	Pace 56K Voice Modem	The Rolls Royce of Modems.
	Pagestream 3.3	You want to lay out pages? Look no further.
	Phase5 PowerUp cards	PowerUp says it all.
Н	Power Scan Magic	Throw away that Microvitec monitor.
1	Power Tower	The best place to re-house your 1200.
	PPaint 7.1	The best pixel paint package on any platform.
8	Quake	Another damn fine game.
	Siamese RTG	Splice your PC to your Amiga.
Н	SoundProbe	Truly awesome sample manipulation package.
	TurboPrint 6	Must-have print enhancement package.
9	VoyagerNG 2.95	Surf the web in style.
3	Wizard Mouse	The rodent of choice in the CU offices.
9	Wordworth 7	The top digital quill on the Amiga.
9	CU Amiga Magazine	Of course

Title	Туре	Comment	Score	
20,000 Web Graphics	Graphics (Clipart)	Extensive but unstructured collection of clipart	85%	
Aminet 23	Various	More of the latest software from the Aminet	88%	
DPaint 5 CD	Graphics (Paint)	A re-release of an old master	83%	
Font machine	DTV (Fonts)	Makes creating colour fonts easy	90%	
Siamese RTG 2.5	Network RTG package	The ultimate PC and Amiga integration	92%	
Simon the Sorcerer	Adventure game	This re-release has great graphics, humour and puzzles	90%	
Speccy Classix '98	Emulation	Collection of games for your Speccy or 64 emulator	89%	
ST Fax Professional	Comms (Fax)	An excellent program for home or small business use	94%	
Theme Park	Strategy game	A slightly aged, but addictive re-release	92%	
Wingnuts	Flight sim	Tongue in cheek, good graphics, poor gameplay	67%	
X-DVE 3.01	DTV (Effects)	Fast and flexible video effects package	92%	

Reviews Index	Туре	Comment	Score
May 98	Туре		7 60
ADescent	3D game	Good but needs work to become the ultimate Descent	82%
ArtStudio Pro	Graphics (cataloguer)	Under-delivers on features, pales before the competition	
Blizzard PPC 040/603	Accelerator (A1200)	The essential upgrade for all A1200 users	
Descent	3D game	Plays well but still has a few glitches	
	Modem	Speed is what matters and this modem doesn't deliver	
Dynamode Modem	Graphics (processor)	Not a rival for ImageFX but makes graphics great fun	82%
Elastic Dreams	Emulation (Mac)	Fusion is tops in Mac emulation	92%
	Kids game	A compilation of three very poor games	40%
Kids Rule OK II Pace 56 Modern	Modem	A high quality modem	92%
	Graphics (cataloguer)	Impressive as a cataloguer and an image processor	90%
Picture Manager Pro 5		Too much work and too little fun	75%
Playdays	Kids game	Great fun for kids – highly recommended	92%
Playdays Paint		Simply brilliant	93%
Wordworth 7	Word processor	Simply brilliant	
Title	Type	Comment	Score
June 98			
AWeb-II 3.0	Comms (browser)	The first Amiga browser with Javascript	90%
ImageFX 3.0	Graphics (paint/process)	The best image processor goes from strength to strength	
Malice (for Quake)	3D game	Utterly brilliant, worth buying quake for alone	
MasterISO V2	CD-RW software	A great all round package	
Micronik External Scan Doubler	Scan Doubler	Well deserving of the Boing Ball	
Micronik Internal Scan Doubler	Scan Doubler	An inexpensive route to a high quality display	
Power Digital Camera	Digital Camera	Easy to use, fun, and cheap – but results don't impress	
Quake	3D game	The ultimate in atmospheric shoot'em up action	95%
Sirius Genlock	Genlock	Superlative video output – at a price	
The Labyrinth of Time	Adventure game	Some design flaws, but an engaging game nonetheless	
	Printer drivers	An essential companion to any modern printer	
Toroprint v		Good, but not ideally suited for Amiga use	75%
TV-Amazing	1 V Tuner	dood, but not recent account to the same accou	
Title	Туре	Comment	Score
July 98			
Amiga Forever	Amiga Emulator	Very workable Amiga emulation	87%
Aminet 24	Various	The latest downloads from the 'net	
Aminet Set 6	Various	A gargantuan collection of software	
Eyetech single-slot Zorro	Expansion (A1200)	Functional, but inelegant and expensive	
EZ-PC Tower	Tower system	An excellent, all-in-one Siamese system	
Flyin' High Patch/Data Disk	Racing game	Bug fixes and extra courses to make Flyin' High playable	
Pyromania	DTV (clips)	A great package for professional DTV	
Quake: Mission Pack 1	3D game	A great way to get more out of Quake	
Shrak for Quake	3D game	Probably one of the finest add-ons for Quake	
Tornado 3D	Graphics (3D)	Flawed, but exciting enough to risk	87%
Virtual Karting 2	Racing game	A sequel that should never have happened	40%
Wheels On Fire	Racing game	A fun game, marred by system unfriendliness	50%
		Good, but not as flexible as a proper sound card	







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Cryptic compiler



Science. All of the coding is carried out and GNU C. The finishing touches

such as graphic interface and so on are finally done on PCs at college using Borland C++. Next year the course will cover C++. As GNU C can compile C++ code. I need help as to the command line used for tion that's supplied with GNU but to no avail. I would appreciate it if you or some one out there could help me, 2, I also have minor problems with a hard drive that I recently ourchased. The hard drive in question is a Seagate 1.2 Gb drive. The problem with the drive is, that it won't boot from cold. I have to do a warm reset. This is a minor inconvenience and

An, Co. Meath

1. The GNU C/C++ compiler is a direct port from UNIX. Consequently, it has a rather arcane user interface, with hundreds of command-line switches and parameters. However, if the correct front-end to the compiler is called, all the tedious setting of options is performed by the compiler itself and an appropriate environment is created for whichever language you wish to use. When the compiler is invoked with the gcc command, it gets set up for standard C mode; when called with 'g++', C++ mode is set up. In addition, correct naming of files is important to make the compiler process a particular file as C or C++ source code. Files that are named with a suffix '.c' get compiled as C: files suffixed with '.cc'. '.cxx', '.cap' or 'C' get compiled as C++. This behaviour may be overridden with the -x switch. For



A Use fast HD floory disks with the Catwoasel controller

example, entering the command 'g++ -x c++ source1.c source2.cpp -o myprog' will compile the two source files both as C++ (even though the first is named incorrectly) with the C++ default settings and will produce an executable called 'myprog'. This is not the place for a detailed discussion of GNU. For information that is more digestible than the documentation supplied with GNU C, point your web browser at http://www.ninemoons.com/GG/d ocs/GG toc.html.2. The reason you cannot boot your machine from a cold reset (ie: switching your machine on) is because your hard drive does not get up to operating speed in time for the system to recognise it. When you perform a warm reset (e.g., pressing CTRL and the two Amiga keys), the hard disk is already spinning so is able to reach the correct speed in time. This is quite a common problem, especially when there are multiple devices connected to the IDE interface. There are two possible solutions: the first and simplest solution is to upgrade your KickStart ROMs to version 3.1.

OS3.1 has a longer reset delay

built-in to overcome this very

problem. The second solution is to construct yourself a circuit which will create a longer reset delay and connect it into your Amiga's reset line. If you are handy with a soldering iron, take a look at aminet/hard/hack/bootdelay.lha.

Amiga DTP wizard



I am a pensioner and am attending a computer class locally. We use PCs, and I have Deen making greet-

ings cards using Microsoft Publisher. This prints four pages on a sheet of A4 paper in such a way that when the paper is folded there is a picture right and my name on the back. I have an Amiga 1200 at home, and I grams, PageStream and PageSetter,

Can you please tell me if there is any such program available on this market at present and where I could obtain one.

Sidney Ray, Surrey,

InitCD problems

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and I

We have received several reports of problems when trying to launch the InitCD script on recent cover CD's. If InitCD fails with the error message: ':C/UpdateCopy failed (return code 1634953583)' then perform the following: boot up your machine, insert CUCD24 in your CD drive, ppen a shell window and enter the

copy CUCD24:libs/asyncio.library libs:

This problem is caused by the tool UpdateCopy which is called by InitCD. UpdateCopy requires the latest version of asyncio.library. If you have an older version of this library installed on your system, asyncio.library will load this instead and fail. The above command will copy the correct version of the library to your system.

I am unaware of any Amiga software that is specifically for creating greetings cards. But it is possible, through ARexx - the Amiga's more powerful equivalent to the PC's wizards - to 'program'

other applications to let you do so. For example, it is possible to write ARexx scripts or macros for. say, Wordworth or PageStream, that asks the user for a greeting message and a picture to use and then will create the card in the manner you have described. If you don't feel up to the task of programming it yourself - don't worry. The chances are somebody has already written the very script that you need.

There are scripts available on the Aminet, for example, to create business cards, calendars, CD inlays, etc. Take a look in the directories text/print, text/dtp or util/rexx. If you do not have access to the internet you could try contacting a PD library to enquire if they have any collections of such scripts. Another good place to try would be your local user group.

Troubled driving



my Amiga 1200 with a Viper 1230/28Mhz and 2Mb Fast Ram, I have

been an Amiga user since 1992 and have used the same hard drive as an Overdrive PCMCIA device for years. but decided to move it to the internal IDE port. I purchased the correct cable from Power Computing for this, and I fitted, re-partitioned and formatted the disk correctly. This far, everything seems fine. After successfully installing WB 3.0. I began to re-install my software, and there

Everything installs fine, and appears in the relevant directory as it would normally. Some software works just fine, but others, e.g. DOPUS 4 refuses to work. When I try to load it from CLI. I get the message: bad loadmodule heap. This also happens when I try to use other has confused me. I telephoned Power, and they suggested that I

changed the MaxTransfer rate using HD-Toolbox, which I did, and even though I re-formatted the drive, the same thing happened! know that you have loads of enquiries, but this almost useless, so I would appreci-

Tim Hutchings, via e-mail.

There are two obvious probable causes of your hard drive problems. The first one is, as Power pointed out, the MaxTransfer setting on each of the hard drive partitions; the second possibility is your power supply. 1. The MaxTransfer setting, contrary to popular belief, is not a rate but a size. It tells your filing system how big a chunk to grab from the device in one go. You should not have to change it, except for some older IDE drives. These type of drives were never designed to have blocks greater than, say, 128K read

from them at once. When you try

to do so, the data gets mangled.

since it only occurs when reading large files, and the symptoms tend to be things like bad hunk errors, etc. This could well be what is causing your problems The solution is

to use HDToolBox (or an equivalent) to modify each of your partitions. First try changing MaxTransfer to 0x1FE00 (in decimal this is 127.5Kb). If it still does not work, try 0xFE00 (63.5Kb), The procedure to do

this is as follows:

Partition Drive and click on your first hard drive partition. Now check the box marked Advanced Options, select Change, enter the desired value for MaxTransfer into the string requester (and press Return) and click OK. Repeat this for the all the remaining partitions When done, click on OK and then Save Changes to Drive. That's it. 2. There is a law in computing known as Pournelle's Law: if you have a computer problem, check your cables first. There is an equialent of this which applies to the A1200: if you have a problem, check your power supply first. The weedy PSU shipped with the A1200 is designed to cope with at most a 2.5" inch hard drive and a smallish memory expansion. 3.5" hard drives cause problems not only because of the greater power load in general and the larger amount of heat to be dissipated. but because the power connecter on the internal IDE interface of an A1200 is not designed to take the load, either. The solution is to get an uprated PSU and power the hard drive directly from it, not via

Start up HDToolBox, select

the motherboard. Keyboard bugs?

bought an Eyetech interface and installed to work fine or so I

thought. Only recently when another Amiga owner was using my system did he make me realise my keyboard adaptor was malfunctioning. The problem seems to be that the adap tor will not accept two keys pressed playing a 'Doom' style game and I press a key to walk forward, if I then press a turn key the player stops

walking forward and turns. The keyboard adaptor will not which is why I did not realise there was a problem, but a friend showed me his adaptor (from a different company) didn't suffer from this and





▲ Or page SS stunner — a topless, Western Digital hard drive.

and they all fail to work correctly with the EZ-Key, I tried these keyboards with my friend's adaptor and all of them, including my own, worked perfectly. So what could be the problem? Is there a software solution or is the keyboard adaptor at fault?

Richard Chapman, via e-mail

This is not a fault as such with the Eyetech keyboard adaptor; it's more of a feature. The interface does not handle simultaneous keypresses in the same way that the A1200 keyboard does. This is inherent in the interface itself: it does not matter what type of keyboard you connect it to. Similar problems occur with the Micronik keyboard interface. There is no solution to this problem, other than buying a different interface. The Ateo keyboard interface, for example, does allow multiple keypresses. Ateo Concepts products are distributed in the UK by White Knight Technology, who may be contacted at 01920 822321.

Please, no more!

know that you consider A500 dead and that there are only a few days, but I still use it. So: 1, I've heard that by setting specific jumpers on A500's board, the A500 could "see" the extra Fast RAM as Chin RAM - if you have a 1Mb Agnus, that is, which I do. are they? 2. In order to upgrade from OCS to ECS, which chips do I have to replace? Are there any consequences from such an upgrade? 3. I've decided to buy an accelerator (either Power Computing's Viper 520CD or CSA's Derringer 500/2000). Could you give advice on what should I look for when buying an accelerator? (Do you happen to

Georgios Marinis-Artelaris, via e-mail

The reason we consider the A500 dead is that it is now over 11 years old and has limited expansion potential simply because very little hardware is produced for it any more. I will answer your question but please, after this, no more A500 questions, 1, Yes, This is possible, but it actually requires physical modification of the motherboard (cutting of tracks, soldering, etc). Look at, for example:

aminet/hard/hack/a500chip.lha. 2 You must replace the Denise chip with an ECS Denise (chip number 8373). 3. The Viper 520CD is good (see review in CU December 97). But ask yourself this - even if you perform the modifications above and buy a 520CD, you will still have a dated and underpowered machine, limited to only a 33MHz 020, 8Mb of Fast RAM and no AGA. A realistic minimum specification for an Amiga these days is a 25MHz 68040. Instead of spending money expanding your A500, why not buy an A1200? They are available at absurdly cheap prices second hand, and even retail new at well under £200. You would then have a machine which is still supported by the market and which has vastly more potential.

HD (How Denser) floppies?

need (want) an HD floo by drive for my A1200T. I find that the faceplate Expansion Eyetech supplied me v internal floppy drive is both unattractive and falls off at regreplace my df0 with a high density drive. However, I can't seem to find any way to do this. The high density drives on sale either come without a face-plate, are not designed to connect to the A1200's internal floppy drive connector, or are for the A4000 (which, I am told, can not be connected to an A1200). Is there any way that you know of to connect a high density floppy with a faceplate

Gerald Mellor, via e-mail

The pinout of the connector to an A1200 floppy drive is substantially different from that of a standard PC one Therefore, it is not simply a case of connecting up a PC high density drive and hoping that it will work. It is actually possible to modify a PC drive to work with the

A1200's floppy drive interface (some of the later A1200's were shipped with an HD drive) but the 1200's I/O hardware is not up to the task of reading from an HD drive - they can only manage it at half speed. A better solution is something like the CatWeasel or Evetech's DiskPlus system. These are both complete replacements for the A1200's floppy interface, and both allow the direct connection of and full performance with PC HD floppy drives.

The CatWeasel is quite an extraordinary piece of kit. Not only does it give you the benefit of connecting cheap, fast and more capacious HD floppies to your Amiga, but it also allows you to read over 20 different file systems, including all PC and Mac formats (even the weird multi-speed, single-sided ones). It is a real boon to the emulation nut (sorry, retro enthusiast) as well, being capable of reading things like CBM 1541 and Apple IIe disks (providing you have a 5.25" drive).

Seedy ROM questions



I have a few questions to ask you.1. I am having troubles with my CD - ROM A1200 with 10MB

RAM, a 2.1GB hard drive and an LG Electronics 16 speed CD-ROM placed in an Eyetech tower using the face. I am using a driver called "cd.device" and the CD++ filesystem to run the CD-ROM. My main to read certain files on some of your cover CD's even though I can access the files on a PC's CD-ROM. It also seems to have trouble reading the CD's while trying to run InitCD or when it tries to load an icon's default comes on and stays on although it is reading nothing. I have already had to exchange my CD-ROM for another of the same make because the other one refused point blank to

2. Is there any way to read enhanced with QuickTime movies that I wish to view, 3. Apart from your DIY option, which would allow me to listen to audio output from my CD-ROM.

Peter Lamont, via e-mail.

1. My advice to you is to replace the driver software for your CD-ROM drive; the "cd.device" is an old system and not best able to

cope with modern CD-ROMs and drives. You should try to get the "atapi.device" (as shipped with IDE-Fix) and for a filing system get either CacheCDFS (also shipped with IDE-Fix) or AmiCDFS2. Both of these systems come supplied on our cover CDs every month (IDE-Fix albeit in demonstration form) so there is really no excuse for not upgrading. 2. What do you mean by enhanced CDs? If you update your software as above, you will find that should be able to read all

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the standard types of CDs. If you wish to be able to view QuickTime movies on your Amiga. you will need some software like QT or CyberQT (both available from the Aminet in the drawer gfx/show). 3. You don't actually need any extra hardware to be able to listen to the audio output from your CD drive, just the correct cable. The audio mixer circuit takes account of the fact that the output levels produced by your Amiga's audio and the CD's audio are not the same, and mixes them equally. Such circuits are available from, for example, Eyetech and Power Computing.

How to write to You can send your queries (or tech tips) to Q&A, CU Amiga Magazine, 37-39 Millharbour, Isle of Dogs, London E14 9TZ or preferably e-mail: q+a@cuamiga.co.uk. We can accept letters or text files on floppy disk. Please do not send an SAE. WE CANNOT RESPOND DIRECTLY TO QUERIES BY POST OR OVER THE PHONE OR E-MAIL, nor answer every Q&A we are sent. Sorry. We do appreciate that you may have a serious problem and until Amiga International re-open a UK office you may have no-where else to turn, but we get so many questions we simply don't have the time or We do our best to use letters in Q&A that answer most common problems, so even if your own question is not answered you

may find an appropriate

solution here.

A to Z



Lithely, lovely and loquacious: three verbs which are rarely applied to John Kennedy... they do begin with "L" though.

L is for.

An AmigaDOS command which is used inside scripts. It defines a label, which is effectively a location to which it's possible to. It's used with the SKIP command: SKIP will jump to the

A Local Area Network is a collection of computers connected, usually via cable, to share files and printers. The Amiga can be networked with other Amigas and comput-

A set of program functions more programs. Libraries exist on disk.

mouse. Lightpens are used by holding them up to the screen. The Amiga hardware supports

because they have quite a low resolution, and they make your

Amiga programs ever, Lightwave is a professional quality image makers of the Video Toaster. It's been used in films and in almost every sci-fi TV show you can Lightwave is also available for

user, multitasking UNIX operatavailable for the Amiga.

from time to time. All List does is create a list of the files present in the specified directory. files of a certain age, include dates, examine attribute files This makes it ideal for generating text files which can be

The Amiga can actually cope with three mouse buttons. extra switch. PD utilities are

the Amiga loads and executes vates Workbench, so don't leave it out. It also has a "secret" option: LoadWB -debug will add happen to have an ASCII terminal connected to your Amiga's serial port and operating at 9600 baud, so much the better

Workbench floppy disks, Locale which makes it possible to specing your Amiga: you can alter routines to appear in Italian or Spanish for example.

One of those AmigaDOS com

use. Lock asks AmigaDOS to pre-Why is this useful? Potentially it could be used when debugging a program, I suppose.

Logical Operators

Boolean maths: essentially the core of all microprocessors and

eXclusive OR.

In programming terminology, a tions which can be repeated one

perform a hundred identical calchoose to write out the same or put the calculation in a loop

By "looping back" an output to an input, it's possible to test or debug a system. For example, you might use the Amiga's serial port in loopback mode to test a communications program; but only if you were bored.

A programming language which is people. A good example is Assembler, which has a lot of very very basic instructions. Each programs therefore run very quickly, but take an age to write and

To take part in a newsgroup by more fun to take part in conver sations - unless they are very



Backchat

Got an opinion on Amiga Inc's big plans or anything else? Email your comments to backchat

@cu-amiga.co.uk or post them to the address below.



Cock up

Look I'm sorry but it has to be said: Amiga inc are making a cock up. I have owned an Amiga for three years knowing as I do that Intel make crap chips, FACT, If Amiga Inc plan to to make x86s I may as well go and build myself a PC now. By my count I can build a PC for £330 inc VAT. What we want is a budget version of phase 5's philosophy: a single G3 unit sound and other features that we are accustomed to for about £600-£700. If Apple can do it Amiga can. This message from Amiga inc fills me with desnair. Hoping for something better,

Shape up!

Richard Faulkner, via email Congratulations on becoming the appointed in you. OK, so you are the world's best selling Amiga magazine, but still the magazine could be a lot better! The June 1998 issue is one of the worst I have seen for a looong time. Let's start with the cover page, it's awfull Who has made this awful, childish, poor Spaceboy drawing? It looks like something from the '70s. Wake

The four pages about the Reality Game Engine would have been more than enough, but then comes Tony Horgan with another eight (II) pages about the same boring stuff. want to read. Your August 1997 issue about coding and StormC And it continues, with three

nages about Spam! And then pages about World of Amiga. I wonder if the guy who made this article may be colour blind? I think you should give this man a course

in design guick as hell, or sack him even quicker. The Screen and Tech Scene parts have good design though, and if all the articles in the magazine had been like this I would

I really looked forward to the Scan Doublers test, because then I thought I finally could decide which scandoubler to buy. But you only tested the Micronik Scan Doublers. so it didn't help me much. Why didn't you test the ScanDoublers which Power Computing sell? They even

As you might see there are many things you can write about instead test of the different 4way-IDE interfaces Evetech, Power Computing and Blittersoft are offering would be of people out there that have to upgrade their Amiga 1200 a bit. I some articles about the demo scene, at least after big events like TP TG and Asm. Would it hurt so much to tell the rest of the world

▲ Childish cover or a classic take on 50s retro carteon style? Rian Haghes' June 98 CU Amiga cover.

about the revolutionary productions from demo partys, like Rise by TRSI from TG98? I don't think so, it would at least be better than Spam. But it seems like Petro Tyschtschenko and the commercial Amiga market don't like the demo scene, which really is a pity. I think I have read that Petro didn't like the demo scene because it didn't help the Amiga, he would like us all to make games instead. That selfish Petro-I#\$##1:)

Torgeir Amundsen, Norway.

Thanks for your frank comments Togeir. In order for CU Amiga to be a successful magazine (which is quite a feat in the Amiga market these days) we try to cover all aspects of Amiga usage. This does include coverage of the demo scene, not least in our regular round-ups of the best demos on our cover CDs. It also includes a diverse range of alternative areas and inevitably it's not all going to appeal to everyone at the same time Our readership varies enormously in age, interests and aesthetic taste.

With any luck, sometime soon there will be a big enough pool of Amiga users to warrant magazines that can focus on specific areas and groups of users. At the moment that's a pipe dream. We have a hunch that "Amiga Scandoubler Magazine" wouldn't fare very well in the current climate. As for why we didn't review every scan doubler under the sun in the same issue, it's simply because they weren't all available at the same time. Rian Hughes supplied the cover illustration.

Tell the world

Everybody keeps going on about how others need to be glorified games machine and, on the simple way of letting people know this. So simple in fact that I can't think why I've not thought of it

on a card? If so what's the point of that? Leaving that aside, there's still ability to keep to their word.

Everyone seems to be in agreement that Gateway never say something until they know it's fact, and

"Why then did they tell us they would be going ahead with a dual PowerPC and 680x0 CPU before doing a U-turn? "

their Amigas to produce documents etc that others are going to see? Quite a lot I would imagine. I know I do, from letters to posters and

Well, what I've started doing is including a footnote, in 8 point text the documents that I produce which states that "This document was produced on an Amiga 1200 using... and then I enter whichever software Simple eh! And maybe, just

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maybe someone who reads it will an Amiga" and then begin to look furwas written at work using a Plastic Contraption as my Amiga is not yet Thanks for a great magazine.

Dave Le Huray, via email

Where to now?

being one of the PC-owning sheep is something I hope to never lose. However, I must confess in the light

confused. For example, Amiga Inc. heard that before haven't we? Then there's this PC-based interim plat-



▲ Sega Dreamcast: a new console with a \$500m

barely release any details of forthalmost ready for release. Why then did they tell us they would be going ahead with a dual PowerPC and 680x0 CPU standard just a few months before doing a U-turn? And just happen to change their minds on their latest plans in a few months?

are until a new wonder machine ing as and when possible and keep we swear allegiance to another as pre\Box)? Or... what? Help please!

Dan Chamberlain, via email It is confusing isn't it? Flick to

Wot no stickers?

them in. You should find you have your sticker with this issue. As for the future of CU Amiga, we'll be reflecting what you, the Amiga users, want from us. If this next generation Amiga

AMIGA powered by

Gareth Maley, via email

First of all, let us appologise to

then our coverage will change accordingly. If it flops or (shock horror!) doesn't turn up in time (or at all) then we'll keep on with coverage of the "classic"

Amigas. We don't have any

plans to split into two maga-

zines or launch a new Amiga

mag in the immediate future.

page 23 for a distillation of the facts and the latest

developments Be U Amiga?

Amiga on account of the WOA show strong pro BeOS message through-

room on the CD-ROM edition to include BeOS apps as well. It's a nutty suggestion but I'm sure you can see the advantages.

Darren Debono, via email

No. is the short answer. If BeOS does turn out to be used as a base for the new AmigaOS then there wouldn inevitably be some connections along the way, but so far Amiga Inc have still not named their OS development partner, so we're still speculating about Be's significance at this stage. As it stands there's no reason to introduce Be-related articles into CU Amiga as a regular thing

A New Era

So Amiga Inc have finally spilled the beans about the next generation

about it? I'll tell you: it's fantastic! mark a new era in computing. But the success of the next generation depends on four things in my

. That Amiga Inc market it properly worldwide. Sega is planning a first next generation Amigas hit the streets. This might be a bit much to the Sega console will be very under powered compared to the new Amiga. But \$100-200 million is need-

. That it's available in all high street chains. If people can't find it. no one will buy it. It will be a hard fight for shelf space next Christmas with the Project X consoles, Sega's WebTV with a powerful 3D chipset 128(?) and low cost PCs · Killer software availability

next generation needs quality software, both games and serious. To begin development now. Amiga Inc need to actively persuade developers to develop for the Amiga, and ered, as software is crucial,

Amiga Inc killed the Amiga by to ask you: Do you really care if the OS you are running is the original AmigaOS, if the new OS is as effective and easy to use? And the Amiga community will still be here something I think is the most important reason for staying with the Amina both now and in the future And it will still be called an Amiga The spirit is still there! Save your pennies! I am!

Vidar Langberget, via email

PowerPC is the future It is quite hard for me to stay with the Amiga as I am only 14 years old

all the time against all these PC users and almost always beat them although it is getting difficult to do this because 95% of PC games are not out on the Amigal

and will be getting better all the thing? If I could program I would do Westwood after I became best in

Gates gag

This month's Gates gag comes from Aubrey Elliott. Can you do

Bill Gates dies in a car accident. He finds himself in purgatory. being sized up by St. Peter.

St. Peter: "I'm not sure whether to send you to Heaven or Hell. After all, you enormously helped society by putting a computer in almost every home in America. yet you also created that ghastly Windows '95, I'm going to do something I've never done before in your case; I'm going to

let you decide where you want to go. I'm willing to let you visit both places briefly, if it will help your decision."

Gates: "Okay, let's try Hell first."

So Bill goes to Hell, It's a beautiful, clean, sandy beach with clear waters and lots of bikini-clad women running around, playing in the water, laughing and frolicking about. The sun is shining and the temperature is perfect. He's very pleased....

Gates: "This is great! If this is Hell, I really want to see heaven!"

So off they go. Heaven is a place high in the clouds, with angels drifting about, playing harps and singing. It's nice, but not as enticing as Hell.

Gates: "I think I'd prefer Hell."

St. Peter: "Fine, you'll be there in

an instant."

Two weeks later, St. Peter decides to check on the late billionaire to see how he's doing in Hell. When he gets there, he finds Bill shackled to a wall, screaming amongst hot flames in a dark cave, being burned and tortured by demons.

St. Peter: "How's it going?"

Gates: "This is awful! It's nothing like the Hell I visited two weeks ago! What happened to that other place, with the beautiful beaches and the scantily-clad women playing in the water?"

St. Peter: "That was a demo."

the world at Command and Conquer. I have had a beta of tle while, and in my opinion, this is the best game ever. Now, put two and two together and the Amiga becomes a hit all over again

into multiplayer gaming also! Please do something ClickBOOM (or whoever else)!

Andrew Werchowiecki

<gameguru@vianet.net.au> An Amiga for all

The Amiga has always been a graphics and video computer. The new Amiga planned by Amiga Inc. will be a spectacular multimedia machine. The web is full of sounds

In amongst all this fun, disabled users are in danger of being forgotten. At one time, the Amiga could be used with a Concept keyboard, for instance. Is this still true? The Amiga's Shell makes it possible in principle for a blind or partially sighted user to operate the all Amiga programs can be started up from the Shell. The program Scripit (on Aminet) should give gadget in any program, purely from a verbal command. But this only have names, so that Scripit can find them.

So, a plea to programmers: mouse. Web designers, please do a text only version of your pages. Let's have a computer which is friendly to all users.

Don Cox, doncox@enterprise.net

A true Amigan?

Recently, there has been some discussion on the Internet about who



makes a true Amigan or not. A To the Point... Amiga community seem to be obsessed with the idea that the

Amiga should be the only cor

puter in the world and wouldn't

accept there are other comput-

ers, even consoles such as the

excellent at everything and no

other computers can match it.

extremely narrow minded and

computer platform is good at

some things and bad at others,

and I see no reason whatsoever

not to take advantage of these.

that the Amiga is not number

one. It's time to accept that

around an Amiga on certain tasks. It's time to accept that it

is stupid to blandly state that

does that makes Mat Bettinson

weak points of our Amigas, and

other computers and combine

or at least learn them and sug-

gest/implement these ideas into

making the Amiga a better, more

Amigan or not - that is up to the

individuals themselves, not for

others to judge them; people

have no right to judge others in

any way, Remember: The Amiga

is not a religion nor it is perfect.

Blimey! That's a provocatively

well-balanced view of things!

Kyle Sterry, via email

non-Amiga owners (or non-

other platforms can run rings

Wake up! It's time to accept

almost frightening. I believe every

This may have been true eight or

Some even say the Amiga is

SWOS revitalised

Cup editions of PlayStation and PC the update cover disk on your July win or get knocked out at the first stage. Well, that's a bit of a lie, but

Nick Sinclair, East Anglia



Killer Instinct

1200 tonight. The game works just problems with Amiga VGB, I'm attaching a screen grab of it running on Amiga VGB. I was suprised at the high quality of the game. despite the small screen size and that it is grayscale. In Wzonka-Lad it even runs at a playable speed on my 50MHz 68030.

Mathew R. Ignash, via email

Yeah, it looks just like the coin-op doesn't it?

Mad scientist

I am looking for users with like interests. I'd like to find other users with a scientific bent (notice my e-

Mark Dekeyser, Canada email: madsci@sentex.net



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Points of View

Time for a few more opinions... please note that the views expressed here are not necessarily those of CU Amiga.

Further problems stemmed from

Problem is, Amiga Inc. don't know

the major players such as phase5,

enough before the announcement

Haage&Partner and Index well



Get your story straight.



the Amiga Classic line alive and giv-A came and with it came ing Amiga owners something to keep The Big Announcement. them going. All this really should have been in from the start Sure enough it was big. but it was also a total mess. Amiga who to talk to. They seem to have been taking advice based more on its for all the details, but seemed so far off the hall when it came to what the fulness. They should have talked to likely impact would be that it was humourous. The implications of it were to say the least heartening the possibility of a serious revival of the Amiga suddenly looks rather

vapour: the problem was that the

spend the weekend in damage limitagood - but they were rather obscured by the unseemly mess of tion, and had they chosen to discuss a presentation. The fuss that rose from the press we could have saved them no announcement was in fact largely end of bad publicity - after all we know what this market is like and

"Problem is, Amiga Inc. don't know who to talk to. They seem to have been taking advice based more on its proximity to Sioux City than its usefulness."

information on general press sources such as CNet on-line information presented at the WOA link up for non attending journalists that those who listened in seemed ference than the rest of us

false news that Amiga was going Intel, and the main source, the CNet news report, seemed to be changed every few hours without explanation. Andrew Korn, Deputy Editor of It was not until the story was posted CU Amiga Magazine

how people will react. Amiga Inc. at last have a PR man, Bill McEwen.

Hopefully he is going to help Al with their presentation, but he isn't going to be able to advise them on the market. Amiga Inc. need to think world wide was so close to inaudible seriously about their market intelligence, because the WOA presentation made them look unprofessional and ill-informed. It is a shame. The Internet was buzzing with the because given what they actually announced, it should have made everyone very happy with them

instead.

The Impending Schism

t's a cliche so tired it can barely make it out of bed, but it continues to this day to be perhaps the best summary anyone could hope to make of the

Amiga market since 1994: the curse of "may you live in interesting times." Who could be bored with all that bankruptcy intrigue But just because ownership

gets settled doesn't mean life

for most purposes be distinct, separate entities.

That means that Amiga developers will be faced with an unenviable task: they will have to choose. Obviously, the decision will be different for each person, and will rely not only on how many but what sort of user stays technology and which take a fiver on the 5.0 machines, and

"The burning question is - will there be a clean break, or just a splintering into countless little tiny shards?"

returns to normal. No, because wedge that will be hammered straight into the Amiga market. The burning question is - will there be a clean break, or just a The message Amiga Inc deliv-

ered in May - the part they said out loud - was that on or about late 1999, new computers labeled "Amiga" which will bear presumably at least some resemblance machines we currently call "Amigas" will be available for purnot to mention all of the other

What they didn't point out is that not every single current Amiga user will set aside their humble machines or their hopped-up system, their towered A1200 with the PPC card inside, their video workstations in order to buy their new wonder computer. And since the degree and new AmigaOS 5.0 machines is still very nebulous (since neither actually exist), these markets will on what their competitors choose to do. After all, it can suddenly become very profitable to be in a market where three of your competitors disappear, even if your potential market has been

The same logic applies the other way - if you can be the first to make it into a new market, fledgeling though it may be, you will be the only game in town and can reap the rewards.

Amiga Inc isn't exactly to "blame" - a split was coming in this market regardless of their actions. Some developers had decided to follow the route being defined by phase5 in the absence of Al guidance - and now that they have established their roadmap, there are still mitted themselves to the existing Amiga market for the long haul. Of course, others have quite vocally backed Amiga Inc's plans.

What will happen when the dle it? How will we at CU handle they will certainly make for interesting times.

Jason Compton. US Correspondent for CU Amiga Magazine

It's not over yet



If we had enough of people going on as if BIR Gates is going on as if BIR Gates is going on as if BIR Gates is the immortal and-hero, destined to control ever speace of the post millernial universe for all eternity. With he's not 5.0 he might be the richest man in the world or these backets. He might be the most the personal control of the post of the personal control of the person of the pe

Now I'm not saying we shot, all lay off him and let him tram; the world underfoot like some kind of 21st centry techno-dictator; quite the opposite in fact. What I am saying is yes, he has done well for himself and won't spend the winters of his latter years worrying about whether he can afford another bar on the electric fire, but that doesn't make him or his produces unterpubble, let

popular phrase: "the only

er

constant in life is change."
The common augment goes along the lines of how can you expect any new computer or system to take over when everyone uses Windows on Intel based hardware?" Custe simple that and change? Custe simple of the man constitution of the design of the control of the design of the desi

take advantage of the latest developments. At one stage or another you probably found it easier to ditch the old machine and get a whole new one, maybe transplanting a few of the older bits into the new machine. To summarise, the old computer was thrown out and a new one bought and put in its place. See, it

Alternatives So that's proof that people do change the physical lump of steel and plastic on their desks, even if they usually swap it for something else in the same product line. Next to a different product line. That one is a bit trickler to illustrate since there has been virtually no opportu nity for people to do that for quite some time. However, people do want an alternative. Of course we are probably the most passionate comes to this subject, but even people who have never used anything iobs their current PC

not much time really. Once you've used a modern mouse-driven computer desktop, learning the ropes of a new variant is comparable to falling off a log.

But what about cash? Microsoft aren't short of a few quid, which does give them a bit of an advantage over any potential rivals when it comes to marketing and advertising. Even so, Amiga Inc's parent company Gateway are doing pratty well too. With very careful, considered and were cuspion marketing and

well in the cup and hence a place in Europe and all the international TV. Covering that poes with it is either that or they' is po back down to the First Division. Day to the third that the properties of the pr

"With very careful, considered and even cunning marketing and advertising strategies it would be possible for them to build up the Amiga brand once more."

advertising strategies it would be possible for them to build up the Amiga brand once more. Perhaps the trick is not to go straight for thing in the street with the hard sell via TV ads.

There's more than one way to

There's more than one way to skin a cat as they say. How about, for example, donating a few systems to major TV production units in exchange for a mention in



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I suppose you think I'm forgetting the matter of software compatibility. Surely I'm not suggesting people will dump the likes of Microsoft Office? Well, yes. Why not? No-one on this earth was born with the ability to use Windows or a Windows or windows or a window or a window or windows or windo

a titing system which has Powered g y Amiga permanantly etched into the corner of every screen? Work out a two or three year sponsorship deal with a Premierabip football team that you think will make it into the European competitions in the following season (my tip is Middlesborough for good sponsorship value and a chance of doing

movie players that give each passenger a choice of a range of films or TV programmes to watch, plus a variety of games including arcade, strategy and classic board games to please different people, not forgetting the golden rule: "Powered by Amina" stamped on every screen.

Amiga needs you

I'm sure we could all come up with a lot more ideas along the with a lot more ideas along the er. You new know, Amiga line. I'm en work in a cou-le of their own. Here's an idea, how about you all think up some other marketing/advertising/ branding schemes and send them to us. We can then pass them on to Amiga Inca and they can choose to use any that they can choose to use any that they feel would be appropriate.

Yes, that's decided, You write your created that seed that your created that seed that you created that seed that you can dead with a make sure they get to the right people. Don't go on about what you think the new hardware should be, or what you think Commodore did wrong in the past or any of that. Keep it short and sweet, because let's face it, if Amiga fine are going to bring out a super computer within 18 months they're going to be pretty bus a manyour.

Get that grey matter ticking over and send your ideas to: Crackpot Ideas, CU Amiga, 37-39 Millharbour, Isle of Dogs, London E14 9TZ. Alternatively email your schemes to crackpot@cuamiga.co.uk III

Tony Horgan, Editor of CU Amiga

The Konix Multisystem

Did you know that Britain almost had its own killer games console? It's true - one of the biggest techno tragedies of the past decade is that one of the most original console designs ever didn't make it to market.

ack in the late 1980's, a were happily churning out joysticks. They were best known for tive handheld design and still my favourite control after all these years. Building joysticks for a living



A It's an aeroplane!

V ... No, it's a car...



must have seemed a pretty tedious way of doing business, and so ing something else: a brand new games console.

The original design for the console came from a company called Flare Technology, who had designed a computer system imagi-Remember, this was the 1980s, and names like "Flare", "Duran Duran" and "Elan" were considered cool.

The heart of the Konix console was a single ASIC (Application Specific Integrated Circuit) which contained the video generator, colour palette, disk controller,

Blitter, ROM, fast RAM, 12 MIP Arithmetic and Logic Unit, RISC Digital Signal Processor, and A/D ports. In fact, the ASIC alone was as complicated as the 68000 processor used by the Amiga.

The CPU driving the system was a 16bits 8086 device, offering a palette of 4096 colours and resolu-These was a multi-channel stereo sound system, and most interesting of all, a floppy disk drive as well as a cartridge

port. The floppy drive was able to be read constantly, piping data to even in the middle of a ever, the tive

about the its design. t was called the "multisystem"

because it could transform it's shape. One minute it had a steering wheel controller, then a motorbike handlebars, then it was an aeroplane controller. There was also a fantastic array of promised goodies, including a lightgun and some kind of chair which

you could sit in for total immerse Konix also had the not inconsiderably talents of Jeff Minter on their side. Mr Minter is a gaming legend, with titles such as "Attack of the Mutant Camels" under his belt.

Well, under his Afghan more like. Sadly the Konix never made it. Developers were unhappy at the amount of RAM on board, only 128K, which meant animation and other effects were difficult. The floppy disk just couldn't provide the data needed to make animation effects work, and there was nothing for it but to increase the

on when the price of memory was extremely high, and the cost of doubling it to a more reasonable

256K had to be met from the were set on bringing price under £199. delays of producing a comsystem, and

a lack of any finished third-party software finally did for it, and despite the UK press hoping and praying, the Multisystem never made it to a proper launch. Mutant

Camels was one of the only games finished, and awesome as it was, it wasn't going to be enough to launch an entire console.

Interestingly, Flare created a new system which went on to have slightly more success. Bet you can't guess its name: Jaguar John Kennedy



A Hans on it's a motorbike! ... And it's get pedals too.



Konix Multisystem specifications

On-board memory: 256K (in later versions upgraded to 512K) Processor: 16-bit 8086 chip plus a custom 12 Mitz ASIC chip includes video generator, colour palette, disk controller, Blitter, ROM, fast RAM, 12 MIP Arithmetic and Logic Unit, RISC Digital Signal Processor, stereo compact disk DACs and digital and analogue ports.

Graphics: maximum resolution of 512x200 pixels and 16 colours

Sound: 25 (2) shanel sters CD quality sound

Display output: Standard TV or Rose Composite video

Sound output: Via TV or through sters headphone socket

Software format: Customised 880K 3.5" disks and expansion cartridge

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